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Operating Instructions and Parts Manual
14-inch Woodworking Band Saw
Model JWBS-14SF

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1.0 **Warranty and Service**

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit jettools.com.

WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).

90 DAY WARRANTY

Lathe Accessories
Machine Accessories
Mobile Bases
Safety Equipment
Specialty Items
Vise Accessories

1 YEAR WARRANTY

Air Tools-Contractor
Air Tools-Industrial
Air Tools-Light Industrial
Lubrication

2 YEAR WARRANTY

Beam Clamps
Body Repair Kits
Bottle Jacks
Cable Pullers
Cold Saws
Hoists-Air
Hoists-Electric
Jack Stands
Metal forming
Mill/Drills
Milling Machines
MW Bandsaws
MW Drill Presses
MW Finishing Equipment
MW Lathes
MW Precision Vises
Pallet Trucks
Rigging Equip.
Scissor Lift Tables
Screw Jacks
Service Jacks
Stackers
Surface Grinders
Tapping
Trolleys-Air
Trolleys-Electric
Trolleys-Plain
Web Slings
Winches-Electric

3 YEAR WARRANTY

WW Benchtop Tools

5 YEAR WARRANTY

Lever Hoists
Pullers-JCH Models
Trolleys-Geared
Winches-Manual
WW Air Filtration
WW Bandsaws
WW Buffers
WW Drill Presses
WW Dust Collectors
WW Dust Filters
WW Dust Fittings
WW Jointers
WW Lathes
WW Planers
WW Sanders
WW Shapers
WW Tablesaws

LIFE LIFETIME WARRANTY

Fastening Tools
Mechanics Hand Tools
Striking Tools
Vises (no -precision)
Clamps
Chain Hoist- Manual

Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.

WHAT IS COVERED?

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

WHO IS COVERED?

This warranty covers only the initial purchaser of the product.

WHAT IS THE PERIOD OF COVERAGE?

The general JET warranty lasts for the time period specified in the product literature of each product.

WHAT IS NOT COVERED?

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

HOW TO GET SERVICE

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

HOW STATE LAW APPLIES

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

LIMITATIONS ON THIS WARRANTY

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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3.0 **Safety warnings**

1. Read and understand entire owner's manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace warning labels if they become obscured or removed.
4. This band saw is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a band saw, do not use until proper training and knowledge have been obtained.
5. Do not use this band saw for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shield while using this machine. (Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.)
7. Before operating band saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do not wear gloves.
8. Keep work area clean. Cluttered areas and benches invite accidents.
9. Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
10. Secure work. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
11. Disconnect tools before servicing; when changing accessories, such as blade, bits, cutters and the like.
12. Direction of feed: Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
13. Maintain proper adjustment of blade tension, blade guides, and thrust bearings.
14. Adjust upper blade guides to just clear workpiece (approximately 1/8").
15. Make sure blade tension, tracking and blade guides are all properly adjusted.
16. Make relief cuts where possible, when cutting curved stock.
17. When feeding small work pieces into blade, always use push stick, fixture, or similar device to keep hands at a safe distance.
18. Hold stock firmly and flat against table.
19. Wear ear protectors (plugs or muffs) during extended periods of operation.
20. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead based paint.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.

21. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
22. Make certain switch is in OFF position before connecting machine to power supply.
23. Make certain machine is properly grounded.
24. Do not back stock out of blade while blade is running.
25. Do not remove jammed cutoff pieces until blade has stopped.
26. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.

27. Keep safety guards in place at all times when machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.
28. Check damaged parts. Before further use of machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
29. Keep floor around machine clean and free of scrap material, oil and grease.
30. Keep visitors a safe distance from work area. Keep children away.
31. Make your workshop child proof with padlocks, master switches or by removing starter keys.
32. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
33. Maintain a balanced stance at all times so that you do not fall into blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
34. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and more safely.
35. Use recommended accessories; improper accessories may be hazardous.
36. Maintain tools with care. Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
37. Turn off machine before cleaning. Use a brush or compressed air to remove chips or debris — not your hands.
38. Do not stand on machine. Serious injury could occur if machine tips over.
39. Never leave machine running unattended. Turn power off and do not leave band saw until blade comes to a complete stop.
40. Remove loose items and unnecessary work pieces from area before starting machine.
41. Keep hands out of line of saw blade.
42. Don't use in dangerous environment. Do not expose machine to rain or use in wet or damp locations. Keep work area well lighted.
43. Remove safety key from switch whenever band saw is turned "OFF", and keep safety key out of reach of unauthorized persons or children.

Familiarize yourself with the following safety notices used in this manual:

⚠CAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

⚠WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

4.0 About this manual

This manual is provided by Walter Meier (Manufacturing) Inc. covering the safe operation and maintenance procedures for a JET Model JWBS-14SF Band Saw. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide years of trouble-free operation if used in accordance with the instructions as set forth in this document.

This manual is not intended to be an exhaustive guide to band saw operational methods, use of jigs or after-market accessories, choice of stock, etc. Additional knowledge can be obtained from experienced users or trade articles. Whatever accepted methods are used, always make personal safety a priority.

If there are questions or comments, please contact your local supplier or Walter Meier. Walter Meier can also be reached at our web site: www.waltermeier.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

⚠WARNING Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

5.0 **Features and Terminology**

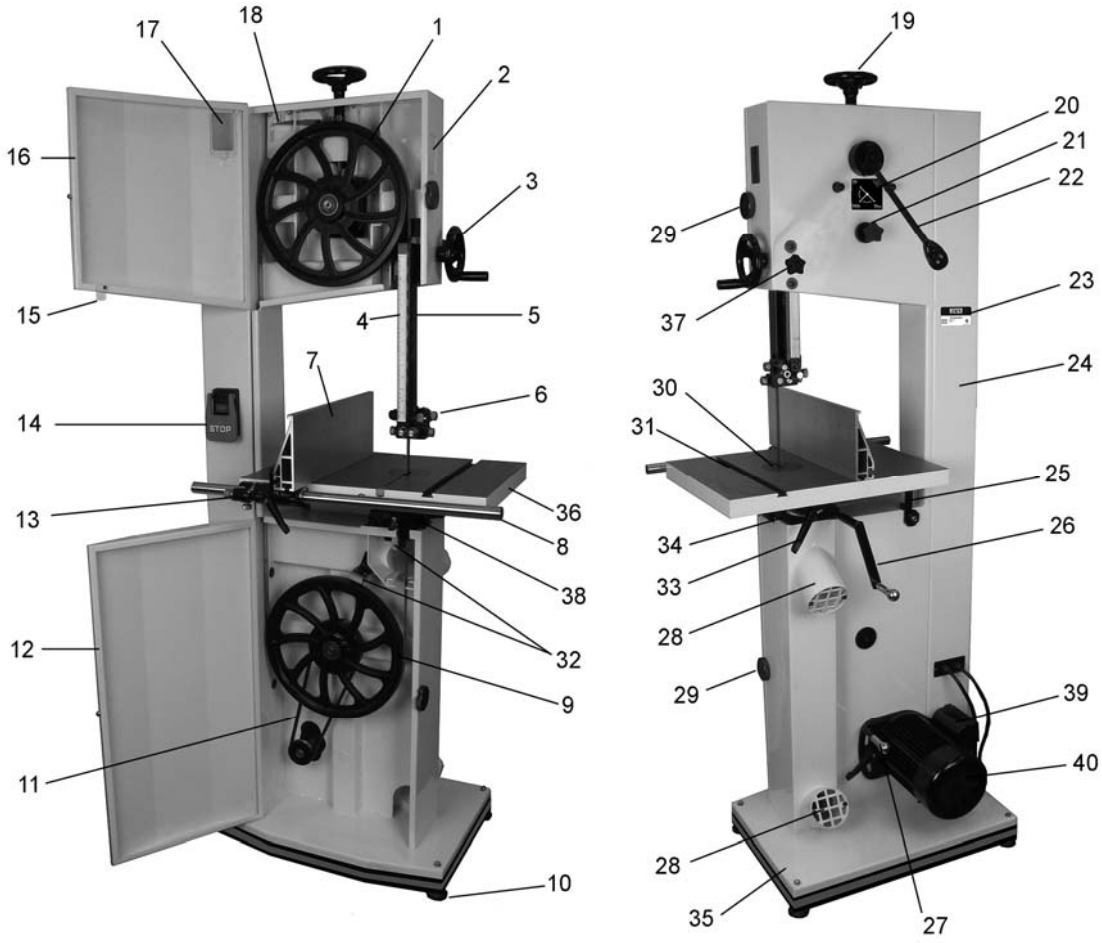


Figure 1

1. Upper wheel
2. Tracking window
3. Guide post handwheel
4. Cutting height scale
5. Guide post
6. Upper blade guides
7. Fence plate
8. Guide rail
9. Lower wheel
10. Leveling screw with foot pad (x4)
11. V-belt
12. Lower door
13. Fence micro-adjustment
14. Start/stop switch
15. Guide post scale indicator
16. Upper door
17. Tension scale window
18. Blade tension scale
19. Blade tension handwheel
20. Direction label (tension release handle)
21. Blade tracking knob
22. Blade tension handle
23. I.D. label
24. Column
25. 90-degree stop
26. Table tilt handle
27. Motor lift handle
28. Dust port (x2)
29. Door lock knob (x2)
30. Table insert
31. Miter slot
32. Brush (x2)
33. Table tilt lock handle
34. Table trunnion
35. Base
36. Cast iron table
37. Guide post locking knob
38. Lower blade guides
39. Motor capacitor box
40. Motor, 1-3/4HP dual voltage

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, Walter Meier (Manufacturing) Inc., reserves the right to change specifications at any time and without prior notice, without incurring obligations.

6.0 **Specifications**

Model number **JWBS-14SF**
Stock number 714500

Motor and electricals:

Motor type ..... totally enclosed fan cooled, induction, capacitor start
Horsepower ..... 1.75 HP (1.3kW)
Phase ..... single
Voltage ..... 115/230V (prewired 115V)
Cycle 60Hz
Listed FLA (full load amps) ..... 15/7.5 A
Starting amps ..... 70/40 A
Running amps (no load) ..... 4.0/2.0 A
Start capacitor ..... 400-480 MFD, 250VAC
Run capacitor 80μF, 450VAC
Power transfer ..... v-belt
On/off switch ..... push button
Motor speed ..... 1720 RPM
Blade speed ..... 3000 SFPM
Power cord length ..... 6-1/2 ft. (198cm)
Power plug installed ..... yes
Recommended circuit size[1] ..... 30A (for 115V); 20A (for 230V)
Sound emission ..... 75 dB at 3ft (900mm) from blade, without load

[1] *subject to local/national electrical codes.*

Capacities:

Maximum cutting height/resaw capacity ..... 13-1/2" (345mm)
Throat capacity ..... 13-1/2" (345mm)
Minimum blade width ..... 1/8" (3.2mm)
Maximum blade width ..... 3/4" (19mm)
Blade length ..... 125" (3175mm) +/- 1/2"
Blade provided ..... hook type, 1/2" x 0.025" x 4 TPI
Wheel diameter ..... 14" (356mm)

Materials:

Table ..... ground cast iron
Trunnion ..... steel
Frame ..... steel
Band wheels ..... cast iron
Tires ..... polyurethane
Blade guides ..... ball bearing
Resaw fence ..... extruded aluminum
Paint finish ..... powder coating
Table insert ..... anodized aluminum
Door locking knobs ..... anodized aluminum

Table and Fence:

Table dimensions ..... 21-1/2"L x 16"W x 1-5/8"D (546 x 406 x 40mm)
Table tilt ..... 10° left, 45° right
Table height from floor at 90-degrees ..... 39" (990mm)
Miter T-slot ..... 15/16"W x 3/8"D; opening 3/4"W (24 x 9.5; 19mm)
Resaw fence ..... 18-1/4"L x 6"H (463 x 152mm)

Dimensions

Base footprint ..... 25"L x 17-3/4"W (635 x 450mm)
Overall dimensions of shipping carton ..... 29"L x 25-3/4"W x 79-1/8"H (735 x 655 x 2010mm)
Overall dimensions, fully assembled ..... 30"L x 26-1/4"W x 74-1/2"H (760 x 665 x 1890mm)

Dust collection:

Dust port outside diameter	two at 4” (100mm)
Minimum extraction volume required	600 cfm (17cmm)

Weight:

Net	356 lb (162 kg)
Shipping	400 lb (182 kg)

L=length; W=width; D=depth; H=height

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, Walter Meier (Manufacturing) Inc., reserves the right to change specifications at any time and without prior notice, without incurring obligations.

6.1 Base Hole Centers – JWBS-14SF

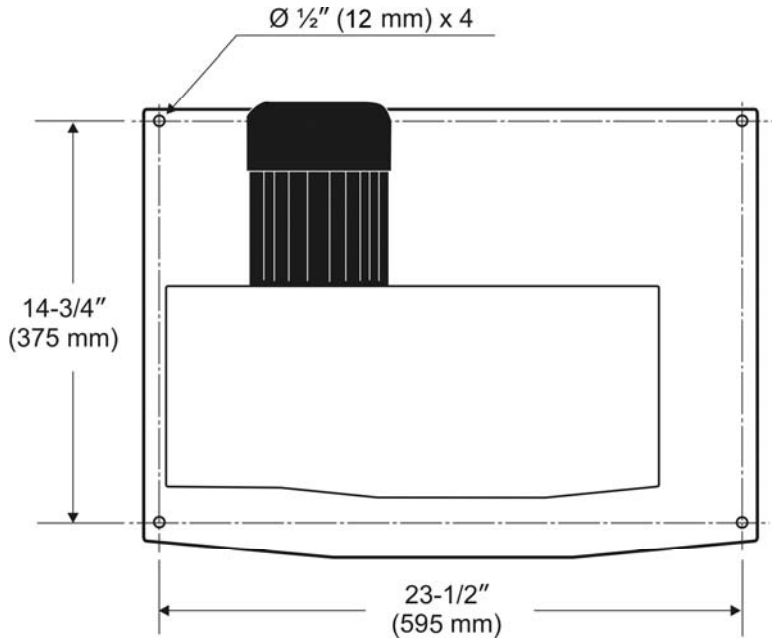


Figure 2

⚠WARNING **Read and understand all instructions before attempting assembly or operation of band saw. Failure to comply may cause serious injury.**

7.0 Setup and assembly

7.1 Unpacking

1. Remove all contents from shipping carton. Do not discard any shipping material until band saw is assembled and running satisfactorily.
2. Inspect contents for shipping damage. Report any damage immediately to your distributor and shipping agent.
3. Compare contents of shipping carton with the contents list in this manual. Report shortages, if any, to your distributor.

Note: Some parts may have come pre-assembled to the saw.

7.2 Shipping contents

Carton contents

1 Band saw
1 Fence assembly with aluminum resaw fence
1 Table tilt handle
4 Leveler pads
1 10/13mm Wrench
1 16/18mm Wrench
1 6 mm Hex Wrench
1 5 mm Hex Wrench
1 4 mm Hex Wrench
1 3 mm Hex Wrench
1 2.5 mm Hex Wrench
1 2 mm Hex Wrench
1 Owner's manual (not shown)
1 Warranty card (not shown)

Tools required for set up and assembly:

Hoist or forklift, with straps
Machinist square

7.3 Location

Remove all crating and plastic from around machine. Remove any screws or straps holding band saw to shipping pallet.

7.4 Installing leveler pads

If you will not be securing the band saw to the floor, install the four leveling pads to the threaded holes in the base, and secure with hex nuts (Figure 3).

Figure 3

⚠CAUTION **Exercise care when removing machine from shipping pallet.**

Move band saw to its permanent location, which should be dry and well lit, with a level floor and enough space on all sides to handle long stock or perform routine maintenance on the machine. Make sure floor is able to support weight of machine. If desired, band saw can be secured to floor using lag screws (not provided) through the four holes in base. See Figure 2 for hole spacing.

Get assistance to help tilt saw off the pallet to upright position on the floor. Or, use a hoist or forklift with straps to remove band saw from pallet. The straps used should have a minimum 500-lb. lifting capacity. Do NOT place forks or straps directly beneath table or against handles or levers

Exposed metal surfaces, such as table surface and blade guides, have been given a protective coating at the factory. This coating should be removed with a soft cloth moistened with solvent. Do not get solvents near plastic or rubber parts; and do not use an abrasive pad as it may scratch exposed surfaces.

7.5 Assembling table tilt handle

Slide handle (A, Figure 4) onto shaft at back of band saw, and push on as far as it will go. The handle can be removed when not in use.

Figure 4

7.6 **Dust Collection**

The use of a dust collection system is strongly recommended for this band saw. It will help keep the shop clean, as well as reduce potential health hazards caused by inhalation of wood dust. The collector should have a capacity sufficient for this size machine; a minimum 600 CFM is recommended. Walter Meier has a line of dust collection systems available; see your dealer or visit our website listed on the cover.

Connect the hoses of your dust collection system to the saw's dust ports (4" outside diameter). Secure tightly with hose clamps (not provided).

7.7 **Electrical connections**

⚠WARNING **Electrical connections must be made by a qualified electrician in compliance with all relevant codes. This machine must be properly grounded to help prevent electrical shock and possible fatal injury.**

The JWBS-14SF band saw is rated at 115/230V power, and is pre-wired for 115 volt. The band saw comes with a plug designed for use on a circuit with a *grounded outlet* that looks like the one pictured in **A**, Figure 5.

Before connecting to power source, be sure switch is in *off* position.

It is recommended that the band saw, when operated on **115 volt power**, be connected to a dedicated 30 amp circuit with breaker or time-delay fuse marked "D". When operated on **230 volt power**, it is recommended the band saw be connected to a dedicated 20 amp circuit with breaker or time-delay fuse marked "D". **Local codes take precedence over recommendations.**

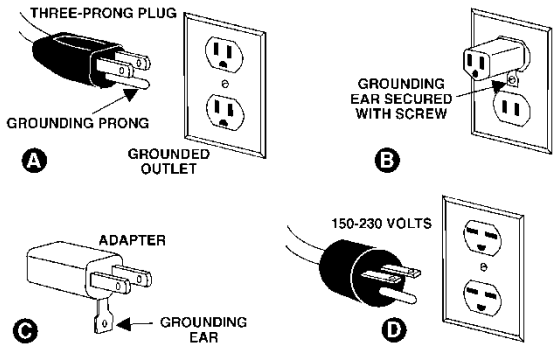


Figure 5

7.8 **Grounding instructions**

1. All Grounded, Cord-connected Tools:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

⚠WARNING **Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.**

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Make sure the voltage of your power supply matches the specifications on the motor plate of the Band Saw.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating ***less than 150*** *volts:*

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **A,** Figure 5. An adapter, shown in **B** and **C**, may be used to connect this plug to a 2-pole receptacle as shown in **B** if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. *This adapter is not permitted in Canada.* The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

*3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between **150 - 250 volts**, inclusive:*

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **D,** Figure 5. The tool has a grounding plug that looks like the plug illustrated in **D**. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

7.9 **Voltage conversion**

To switch the incoming power leads for 230 volt operation, follow the wiring diagram on the inside cover of motor junction box.

The plug on the end of the motor cord must be replaced with a UL/CSA listed plug rated for 240V.

7.10 **Extension cords**

The use of extension cords is discouraged; try to position machines within reach of power source. If an extension cord becomes necessary, make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

Recommended Gauges (AWG) of Extension Cords

		Volts	Total length of cord in feet			
Ampere rating		120	25	50	100	150
		240	50	100	200	300
More than	Not more than		Minimum gauge cord			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	NR	NR

NR: Not Recommended.

Table 1

Use Table 1 as a general guide in choosing the correct size cord. The smaller the gauge number, the heavier the cord. If in doubt, use the next heavier gauge.

7.11 **Switch lockout**

The band saw is equipped with a push-button switch that will accept a safety padlock, as shown in Figure 6. To safeguard your machine from unauthorized operation and accidental starting by young children, the use of a padlock (not provided) is highly recommended. Place the key in a location that is inaccessible to children and others not qualified to use the tool.

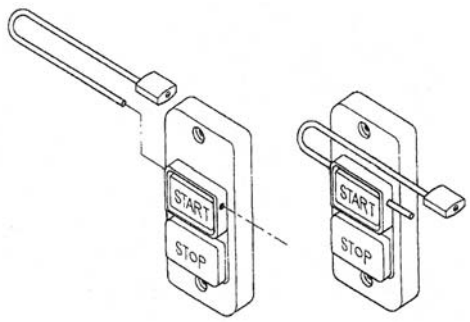


Figure 6: Switch Lock Out

8.0 **Adjustments**

8.1 **Tools required for adjustments**

Machinist square
Hex keys, 2/2.5/3/4/5/6 mm
Straight edge
Angle gauge

8.2 **Fence resaw plate**

Refer to Figures 7 and 8.

Loosen lock bar (A) with handle (B). Pull out on lock bar until it protrudes enough on which to slide the aluminum fence plate from one end, as shown in Figure 7. Retighten knobs.

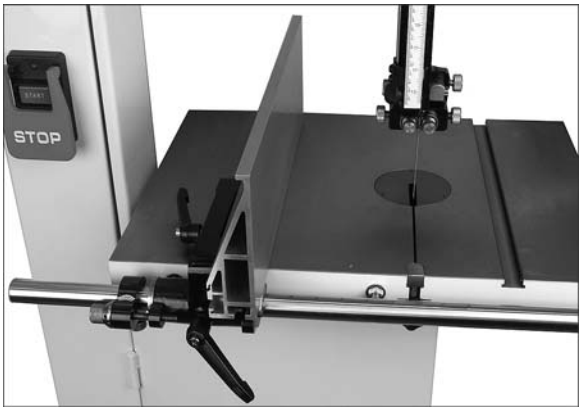


Figure 7 – vertical position

The aluminum fence plate can be installed in one of two positions; vertically (resaw position), as shown in Figure 7; or horizontally as shown in Figure 8.

Horizontal position is useful for smaller workpieces. (The zero setting of the cursor cannot be used with horizontal fence position.)

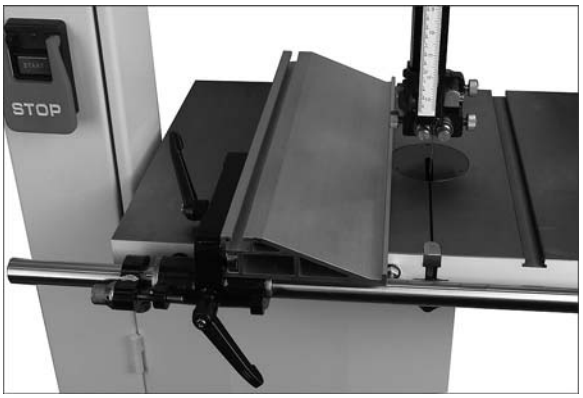


Figure 8 – horizontal position

8.3 **Fence fine adjust**

Refer to Figure 9.

1. Loosen handle (A, Figure 9).
2. Loosen knob (B).
3. Slide fence to approximate position, based on the scale measurement aligning with the right side of fence plate.
4. Tighten knob (B).
5. Rotate dial (C) to achieve fine adjustment. Distance between incised lines on dial is 0.25mm (0.01 inch).
6. Tighten handle (A).

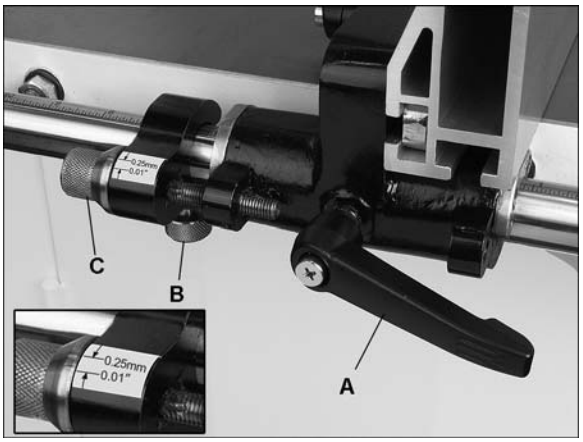


Figure 9

8.4 **Setting table parallel to blade**

Refer to Figures 10 and 11.

1. The table has been aligned by the manufacturer so that the miter slot is parallel to the blade; it should not require adjustment. However, in the future you may wish to confirm the setting is still accurate. A wide blade is recommended for the procedure.
2. Disconnect band saw from power source.
3. Blade should be fully tensioned (see section 8.10).
4. Place a long straightedge flush against blade, making sure it contacts both front and back of blade. (Do not deflect blade by pushing into it.) See Figure 10.

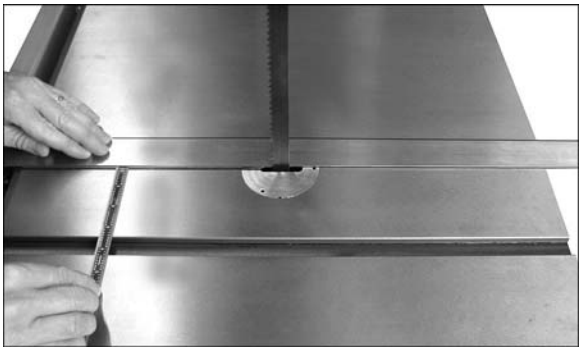


Figure 10

5. Use a gauge to carefully measure distance from miter slot to straight edge. Take measurements at both front and back of table – these should be identical.
6. If miter slot is not parallel to blade, loosen four screws (D, Figure 11) that secure table to trunnion, and shift table as needed until miter slot is parallel to blade.
7. Tighten the four screws.

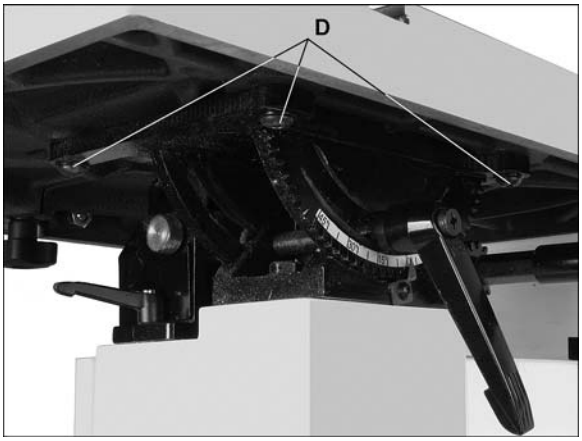


Figure 11

8.5 **Setting fence parallel to blade**

Refer to Figures 12 through 14.

Fence must be parallel to flat of blade for accurate cutting. Since miter slot has been set parallel to blade from the manufacturer (and confirmed by user, as described in *section 8.4*), the miter slot can be used to set fence parallelism.

1. Slide fence to edge of miter slot, as shown in Figure 12. The fence should align with miter slot along its entire length.

2. If adjustment is needed, loosen the hex nuts on one of the two adjustment screws (E, Figure 12) and turn the adjustment screw to bring fence in line with miter slot.
3. Retighten hex nuts.

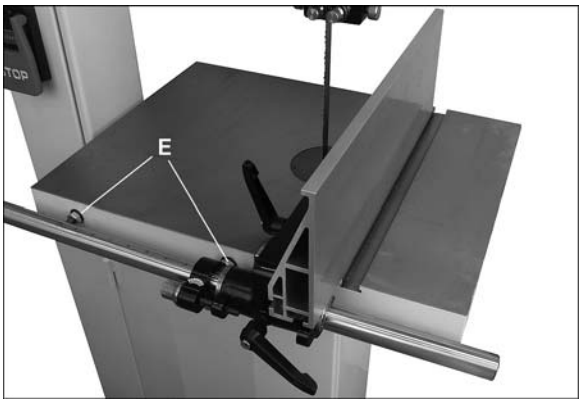


Figure 12

8.6 **Leveling table insert**

Refer to Figure 13.

Use a 2mm hex key to adjust any of three set screws (A, Figure 13) until insert is level with table surface. Place a straight edge across table and insert to verify.

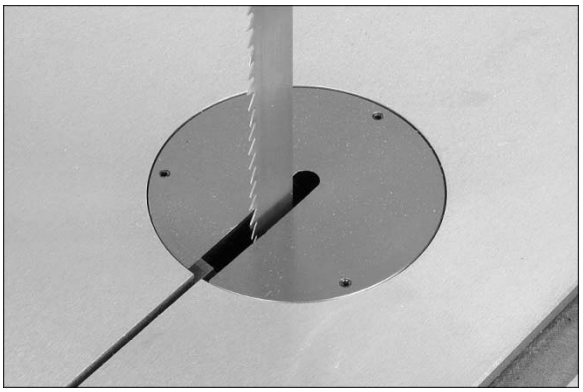


Figure 13

8.7 **Table tilt**

Refer to Figure 14.

1. Loosen lock handle (F).
2. Rotate handle (G) to align pointer (H) with angle on scale.

   NOTE: For left tilt (as viewed from front or operator's side of saw), push stop bolt bracket (J, Figure 15) down.
3. Tighten lock handle (F) to secure setting.

   NOTE: The lock handle (F) can be pivoted to more convenient positions. Simply lift straight out on handle and rotate it on the pin, then release handle making sure it seats itself on pin.

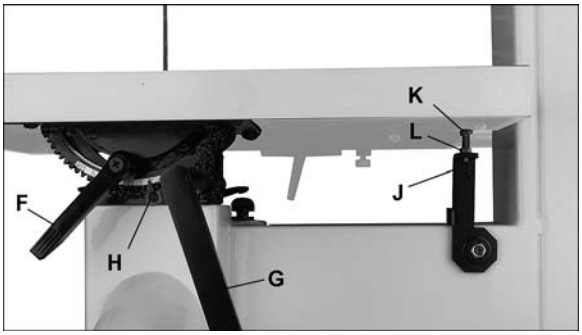


Figure 14

8.8 **90° Table stop**

Refer to Figures 14 and 15.

The 90° positive stop ensures that table will always be perpendicular to blade after table is returned to horizontal position. Check and adjust this 90° stop as follows:

1. Disconnect machine from power source.
2. Make sure blade is under full tension.
3. Tilt table until it rests on stop bolt (K).
4. Loosen lock handle (F).
5. Place a square on table (Figure 15) and against blade to check that table is 90° to blade. Do not push square into blade.

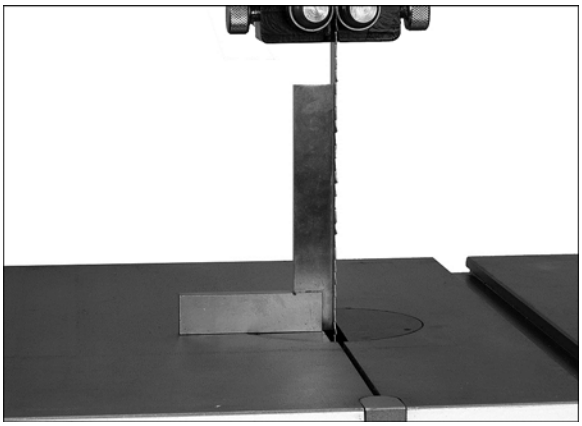


Figure 15

6. If table and blade are not square, use a 13mm wrench to loosen lock nut (L, Figure 14) then rotate stop bolt (M). Turn stop bolt as needed until there is no longer light showing between square and blade.
7. Tighten lock nut (L) to secure table stop in position.
8. Tighten lock handle (F).
9. Check that scale pointer (H) is at zero. If necessary, loosen screw on pointer and shift pointer to zero. Re-tighten screw.

8.9 **Installing/changing blades**

⚠CAUTION **Always wear gloves when handling blades. New blades are usually packaged in coiled position; to prevent injury uncoil them slowly and carefully, while wearing work gloves and safety glasses.**

The JWBS-14SF band saw is designed for blades from 1/8" to 3/4" wide.

Refer to Figures 16,17,18.

1. Disconnect machine from power source.
2. Loosen lock handle (A, Figure 16) and slide out block (B).

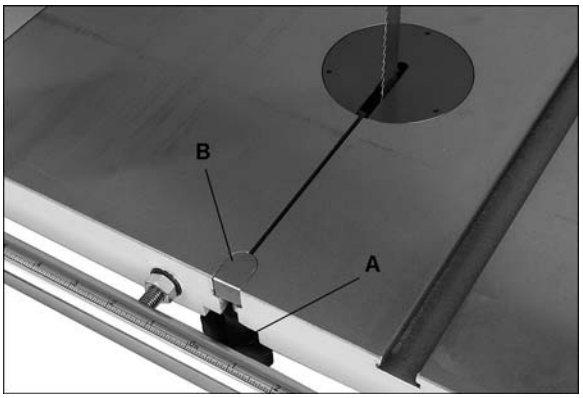


Figure 16

3. Adjust upper and lower blade guides away from blade *(see sections 8.13 and 8.15).*
4. Move quick tension lever to "Full Release (Blade Change)" position.
5. Open upper and lower doors by rotating door knobs.
6. Loosen knob (C, Figure 17) and pivot guide post cover out of the way.

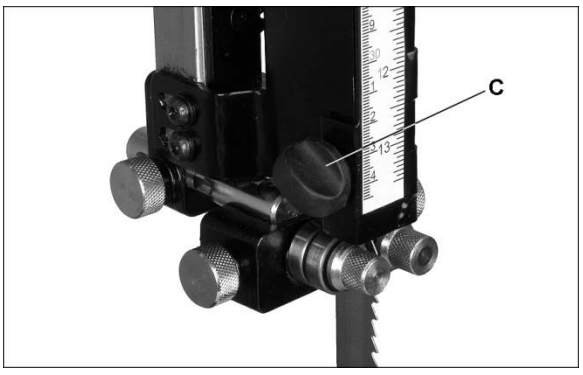


Figure 17

7. Loosen knob (D, Figure 18), pull out on lower guard (E), then swing lower guard to the left. Tilt table slightly if more clearance is needed to swing guard.
8. Carefully remove blade from top wheel, then from between upper and lower blade guides and lower wheel. Slide blade out through slot in table.

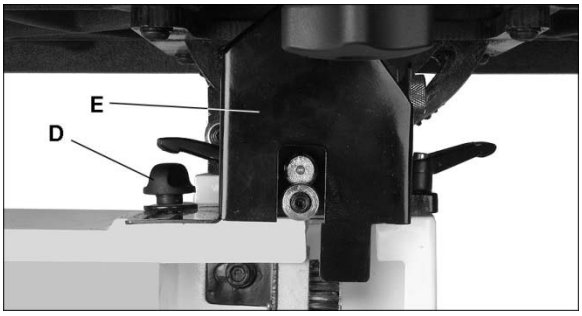


Figure 18

9. Guide new blade through table slot. Place blade loosely in upper and lower blade guides. Make sure blade teeth point down toward table, and toward front of saw. (If the teeth will not point down, no matter how you orient blade, then blade is inside-out. Twist it into correct position and re-install it.)
10. Position blade at center of upper and lower wheels.
11. Reinstall table block (B, Figure 16) and tighten knob (A).
12. Before operating band saw, the new blade must be tensioned and tracked, in that order. Find instructions for tensioning and tracking the blade in *sections 8.10 and 8.11*. The blade guides must also be set properly according to instructions in *sections 8.13 through 8.15.*

8.10 **Blade tension**

Refer to Figure 19.

1. Disconnect machine from power source.
2. Back off upper and lower guide bearings to eliminate any contact with blade.
3. With blade centered on wheels, move blade tension handle to "Full Tension" position, as shown in Figure 19. NOTE: You should feel tension handle settle into each of its three positions.

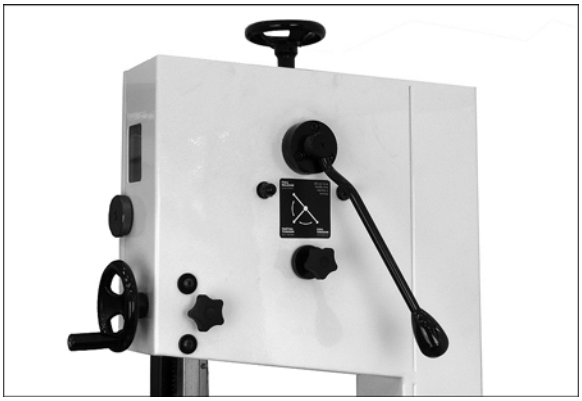


Figure 19

4. Open upper door.
5. Rotate tension handwheel (A, Figure 20) until scale pointer (B) indicates width of installed blade.

TIP: Use the band saw's gauge setting initially. As you become familiar with the machine and with different properties of band saw blades, you may find it necessary to change blade tension from initial setting. Keep in mind that not only changes in blade width, but also type of material being cut will have an effect on blade tension. Too little or too much blade tension can cause blade breakage and/or poor cutting performance.

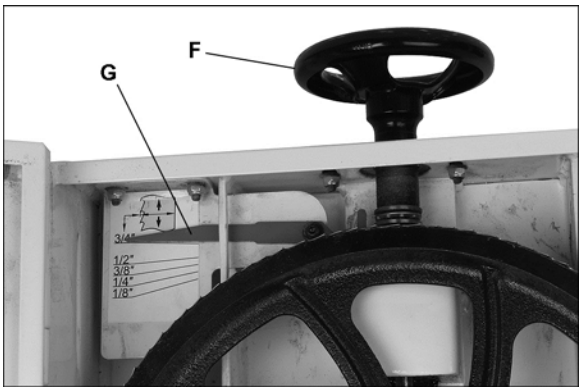


Figure 20

Make a note of the specific tension setting for a particular blade. Tension can then be re-set quickly when that blade is reinstalled.

IMPORTANT: When band saw is not being used, move blade tension handle to "Partial Tension-Idle/Tracking" position. This will prolong the life of blade and tires, and reduce load on wheels, bearings and other components.

8.11 **Blade tracking**

Refer to Figures 21 and 22.

After proper tensioning, the blade must be tracked. "Tracking" refers to position of blade on the wheels while machine is in operation. Tracking should be checked periodically, and is mandatory after every blade change. Blade tracking is done by hand with machine disconnected from power.

1. Disconnect machine from power source.
2. Blade must be correctly tensioned *(section 8.11).*
3. Make sure blade guides and other parts of machine will not interfere with blade movement. Lower guide post until you can see blade through tracking window (H, Figure 21).
4. Set blade tension handle initially to "Partial Tension-Idle/Tracking" position, as shown in Figure 21.

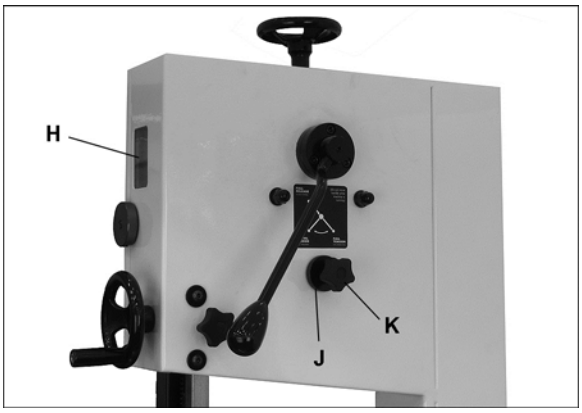


Figure 21

5. Open upper door to expose wheel.
6. Rotate wheel by hand, observing position of blade through tracking window. As you rotate wheel, move lever to "Full Tension" position. The blade should continue to ride upon center of tire (Figure 22).

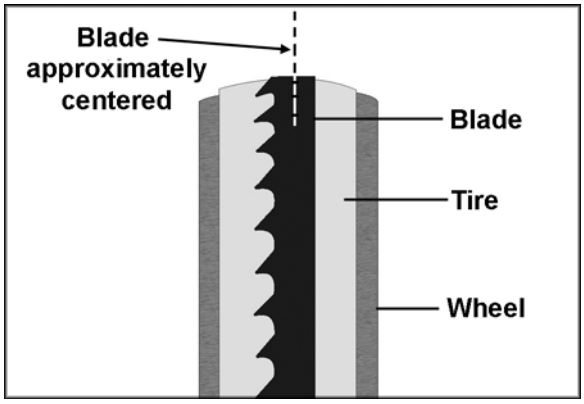


Figure 22

7. If blade tends to move toward edge of wheel, set handle to "Partial Tension-Idle/Tracking."
8. Loosen locking nut (J, Figure 21) and slightly rotate tracking knob (K) with your right hand while continuing to rotate wheel with your left. Observe blade through tracking window. Rotating knob clockwise will cause blade to move toward rear edge of wheel. Rotating knob counterclockwise will cause blade to move toward front edge of wheel.

   IMPORTANT: This adjustment is sensitive; perform in small increments and give blade time to react to changes.
9. When blade is tracking in center of wheel, re-tighten locking nut (J), and close upper door.
10. Move tension handle to "Full Tension" position, and connect band saw to power. Turn it on for a brief time to observe the blade in action through tracking window.
11. If further adjustments are needed, disconnect from power and repeat above procedure.

8.12 **Overview: Bearing adjustments**

Thrust (back support) *bearings* are located behind the saw blade and provide support to the back of the blade when the saw is in operation.

Guide bearings are located on either side of the saw blade and provide stability for the blade when the saw is in operation. These bearings rotate on an eccentric shaft so the distance from the blade can be adjusted for optimal performance.

8.13 **Upper blade guides**

The bearing guides should be set so that contact between blade and guides will occur only when blade is under pressure from a workpiece. To adjust upper bearing guides for proper blade control, proceed as follows.

Refer to Figures 23 through 25.

1. Disconnect machine from power source.
2. Blade must already be tensioned and tracking correctly. Place tension handle in “Full Tension” position.
3. Lower guide post until upper guide bearings are a few inches off table. (The reason for this will be evident later in *section 8.17*)
4. Loosen lock knob (A, Figure 23).

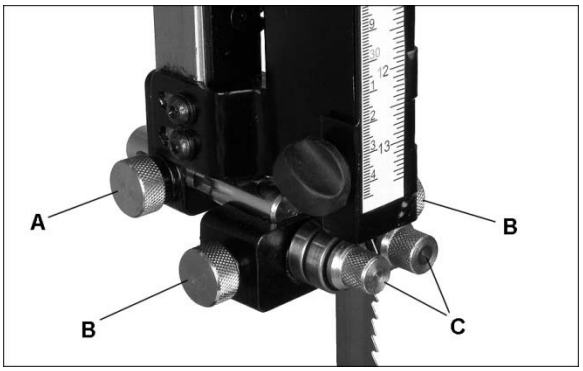


Figure 23

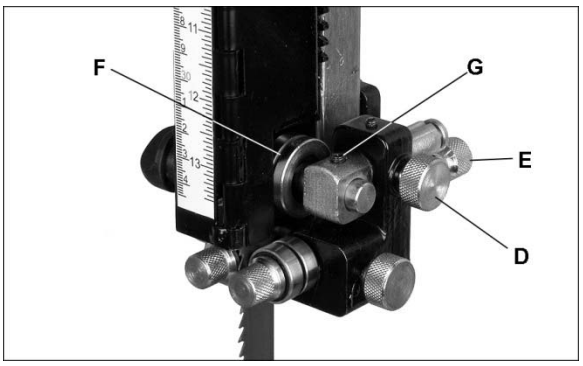


Figure 24

5. Slide entire guide bracket until front of guide bearings are about 0.015” (1/64”) behind the blade’s gullet (curved area at base of tooth). See Figure 24.

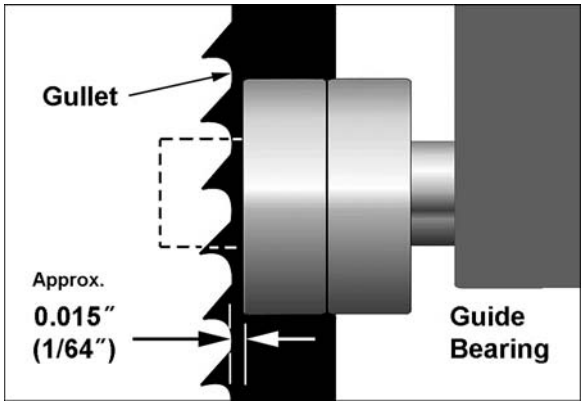


Figure 25

6. Tighten lock knob (A) to secure this position.
7. Loosen lock knob (B) for either of the front guide bearings.
8. The guide bearing rotates on an eccentric shaft. Adjust guide bearing by rotating the knurled knob (C) until guide bearing is approximately 0.004” from blade. A quick way to achieve this spacing is by placing a single thickness of a crisp dollar bill (a dollar bill is approximately 0.004” thick) between blade and guide bearing. Adjust guide bearing until it just lightly grips the dollar bill.

   NOTE: Do not force guide bearing against side of blade. It should generally only make contact with blade when there is pressure from the cutting operation.
9. Tighten lock knob (B).
10. Repeat process for opposite guide bearing.

8.14 **Upper thrust bearing**

Refer to Figure 24.

The thrust bearing prevents backward deflection of blade during cutting. A groove in the bearing surface helps stabilize the moving blade.

1. Loosen lock knob (D) and rotate knob (E) to move thrust bearing (F) up to back of blade.
2. Adjust thrust bearing until space between groove bottom and back edge of blade is approximately 0.015” (1/64”). Tighten lock knob (D).
3. If lateral adjustment of bearing is needed to align groove with blade, loosen set screw (G) at front of bearing assembly, and shift bearing as needed. Retighten set screw.
4. Make sure all lock knobs on upper guide bearing assembly are tightened when adjustments are finished.

8.15 **Lower blade guides**

Refer to Figure 26.

1. Disconnect band saw from power source.
2. Open lower door and swing lower guard out of the way.
3. Adjust lower guide bearings and lower thrust bearing below table in similar manner to that of upper guide and thrust bearings.
4. Movement summary: Loosen lock knob (H) to move guide bearing. Loosen lock knob (J) and rotate knob (K) to adjust thrust bearing in relation to blade. To move entire guide assembly, loosen handles (L).
5. Make sure all knobs and handles are tightened after adjustments are complete.

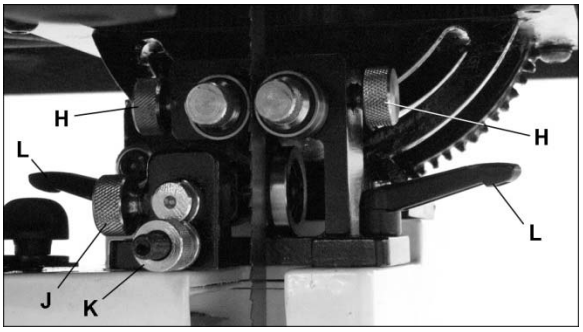


Figure 26

8.16 **Guide post**

Refer to Figure 27.

1. Disconnect band saw from power source.
2. Loosen lock knob (M) and raise or lower guide post using handwheel (N).

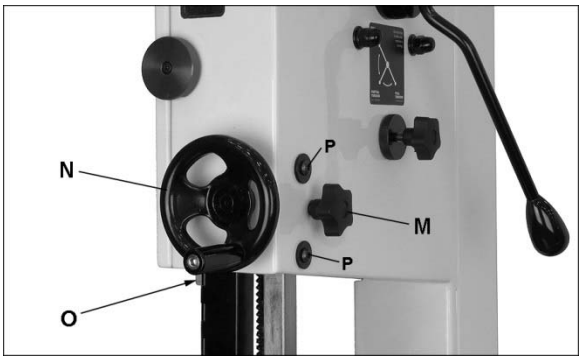


Figure 27

3. Position blade guide assembly so that bottom of guide bearings are about 1/8" above material to be cut. Or, simply lower guide post until scale pointer (O) indicates height of your workpiece. This provides minimal clearance between workpiece and bottom of guide bearings, which will minimize blade deflection as well as enhance operator safety.
4. Tighten lock knob (M).

8.17 **Guide post parallelism**

The guide post should be parallel to blade throughout vertical travel of the guide post; thus the guide bearings will maintain their relationship to blade at any height from the table and won't require re-setting each time guide post is moved. This setting has been accurately made by the manufacturer and should not require immediate attention, but may be checked in future as follows:

1. Disconnect band saw from power source.
2. Move blade tension handle to "Full Tension" position.
3. The guide bearings in low position should already be set in relation to blade (see *section 8.13*). Also, the table must be square with blade *(see section 8.4).*
4. Loosen lock knob (M, Figure 27) and raise guide post to a high position.
5. Confirm that guide post travels straight up and down, and guide bearings maintain their relationship to blade.
6. If guide post does not go straight up and down (blade begins deflecting when guide post is raised), slightly loosen the two screws (P, Figure 27) and adjust guide post assembly as needed.
7. When finished adjusting, securely tighten the two screws (P).
8. Verify the setting by raising and lowering guide post.

8.18 **Drive belt replacement and tensioning**

The drive belt and pulleys are properly adjusted at the factory. However, belt tension should be occasionally checked when the band saw is new, as a new belt may stretch slightly during the breaking-in process.

If belt becomes worn, cracked, frayed or glazed, it should be replaced as follows:

Refer to Figures 28 and 29.

1. Disconnect machine from power source.
2. Open upper and lower doors and remove blade.
3. Loosen motor lock handle (A, Figure 28).
4. Raise motor lift handle (B) and retighten lock handle (A) to hold motor in raised position.

Figure 28

Figure 29

5. Remove old belt from around motor pulley (C, Figure 29) and then from around lower wheel pulley (D).
6. Install new belt, making sure it seats properly in pulley grooves.
7. Loosen motor lock handle (A) and allow motor to lower. Check tension by pushing with moderate pressure on the belt halfway between the pulleys. An adequately tensioned belt will deflect about 1/2". If tension isn't strong enough, push down on motor.
8. Tighten motor lock handle (A).
9. Install blade, and verify blade tension and tracking before operating (sections 8.10 and 8.11).

8.19 **Brushes**

Refer to Figure 30.

Two adjustable brushes are located in the lower wheel housing. They should remain in constant contact with blade and wheel to prevent buildup of gum and debris.

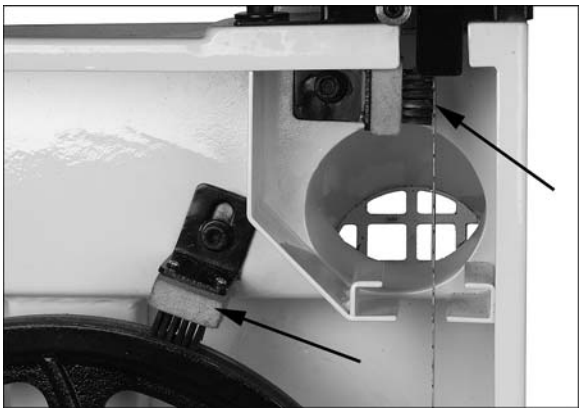


Figure 30

9.0 **Operating controls**

9.1 **Start/Stop**

Refer to Figure 31.

Press green START button to start saw. Press red paddle button to stop.

⚠WARNING After machine is shut off, allow wheels and blade to come to a complete stop before opening guards/doors, making adjustments, or leaving the area.

Figure 31

10.0 **Operation**

The following section contains basic information, and is not intended to cover all possible applications or techniques using the band saw. Consult published sources of information, acquire formal training, and/or talk to experienced band saw users to gain proficiency and knowledge of band saw operations.

(The following figures may or may not show your specific model, but procedures are the same.)

10.1 **General procedure**

1. Make sure blade is adjusted correctly for tension and tracking, and that upper and lower

guide bearings and thrust bearings are set in proper relation to blade.

2. Adjust guide post so that guide bearings are just above workpiece (about 1/8") allowing minimum exposure to blade.
3. If using the fence, move it into position and lock it to guide rail. If using miter gauge for a crosscut, the fence should be moved safely out of the way.
4. Turn on band saw and allow a few seconds for machine to reach full speed.

   ⚠WARNING Whenever possible, use a push stick, hold-down, power feeder, jig, or similar device while feeding stock, to prevent your hands getting too close to the blade.

5. Place the straightest edge of the workpiece against the fence for a rip cut; or against the miter gauge for a crosscut. Push workpiece slowly into blade, while also keeping it pressed against fence or held against miter gauge. Do not force workpiece into blade.

Additional operating tips:

Make *relief cuts* whenever possible. A relief cut is an extra cut made through the waste portion of a workpiece up to the layout line. When that intersection is reached by the blade while following the layout line, the waste portion comes free. This helps prevent pinching of the back edge of the blade in the cut.

⚠CAUTION When cutting, do not overfeed blade; overfeeding will reduce blade life, and may cause blade to break.

When cutting long stock, the operator should use roller stands, support tables, or an assistant to help stabilize the workpiece.

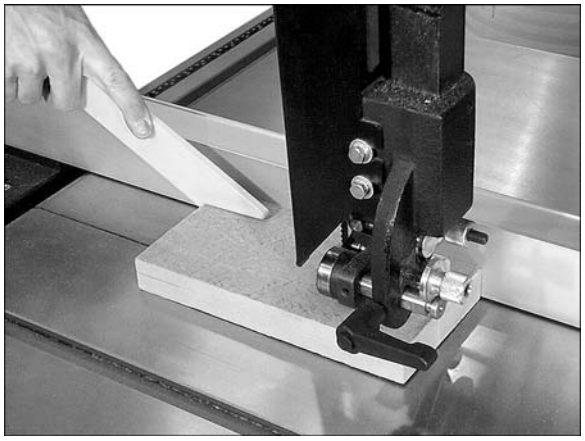


Figure 32 (ripping)

10.2 **Ripping**

Ripping is cutting lengthwise down the workpiece, along the grain of wood. See Figure 32. *Always use a push stick or similar device when ripping narrow pieces.*

10.3 **Crosscutting**

Crosscutting is cutting across the grain of the workpiece, while using the miter gauge to feed the workpiece into the blade.

The right hand should hold workpiece steady against miter gauge, while left hand pushes miter gauge past blade, as shown in Figure 33.

Do not use fence in conjunction with miter gauge. The offcut of the workpiece must not be constrained during or after the cutting process.

⚠CAUTION Using the fence in conjunction with miter gauge can cause binding and possible damage to blade.

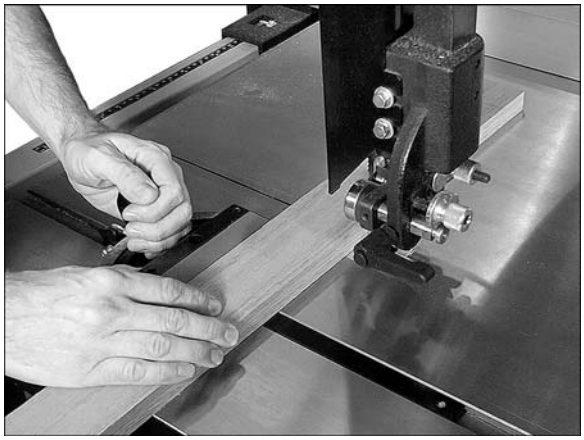


Figure 33 (crosscut)

10.4 **Resawing**

Resawing is the process of slicing stock to reduce its thickness, or to produce boards that are thinner than the original workpiece, such as veneers.

The ideal blade for resawing is the widest one the machine can handle, as the wider the blade the better it can hold a straight line.

When resawing, use a push block, push stick, or similar device to keep your hands away from the blade. Figure 34 demonstrates resawing with the aluminum fence plate.

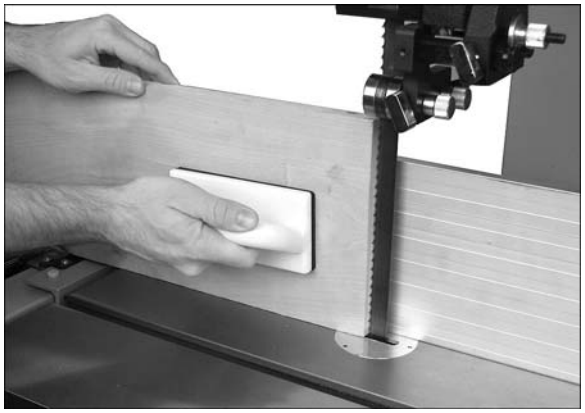


Figure 34 (resawing)

10.5 **Blade lead**

Blade lead, or drift, is when the blade begins to wander off the cutting line even when the band saw fence is being used. Figure 35 shows an example of blade lead. It is more common with small, narrow blades, and is almost always attributable to poor blade quality, or lack of proper adjustments. Inspect the band saw for the following:

- Fence not parallel to miter slot and blade.
- Blade not tensioned correctly.
- Blade is dull.
- Teeth have excessive “set” on one side of blade.
- Workpiece being fed too quickly.

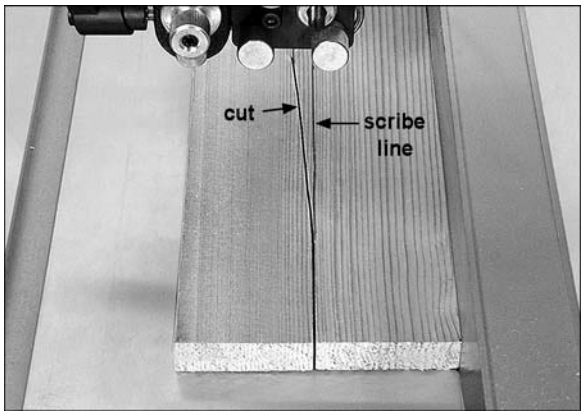


Figure 35

11.0 **Maintenance**

⚠WARNING Before doing maintenance on the machine, disconnect it from electrical supply by pulling out plug or switching off main switch! Failure to comply may cause serious injury.

Clean band saw regularly to remove any resinous deposits and sawdust.

Keep miter slot, and guide bearings, clean and free of resin.

Keep blade clean and sharp. Check it periodically for cracks or other signs of wear.

The drive belt should be checked periodically. If it looks worn, frayed, glazed or otherwise damaged, replace it.

Remove any deposits from band wheels to avoid vibration and potential blade breakage.

Do not let saw dust build up in the upper and lower wheel housings. Vacuum or blow out dust from inside cabinet. (Use proper dust mask equipment).

The table surface must be kept clean and free of rust for best results. If rust appears, it can often be removed with a mixture of household ammonia, good commercial detergent and #000 steel wool. Alternatively, commercial rust removers can be found at many hardware stores.

Apply a light coat of paste wax to table. There are also products in aerosol form available in major hardware stores and supply catalogs. Whatever method is chosen, the coating should protect the metal and provide a smooth surface, without staining workpieces.

If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

11.1 **Lubrication points**

1. Periodically apply a light, non-hardening grease to rack and pinion system of guide post (Figure 36).

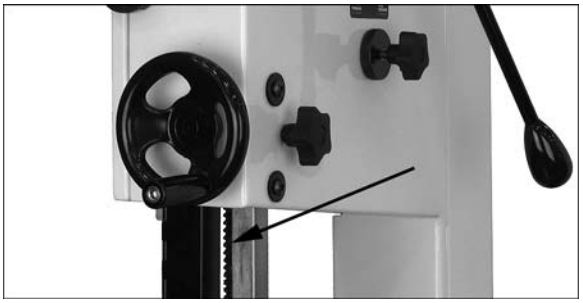


Figure 36

2. Grease sliding surfaces of the table trunnions (Figure 37).

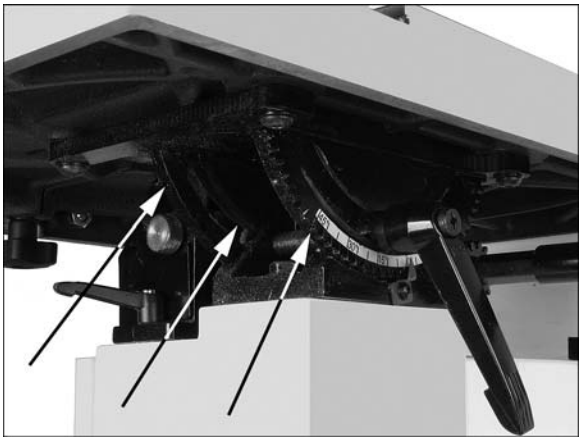


Figure 37

3. Oil any pins, shafts, and joints. (Do not get oil on pulleys or belts.)

Note: Bearings on the band saw are pre-lubricated and sealed, and do not require attention.

12.0 **Blade selection**

Using the proper blade for the job will increase the operating efficiency of your band saw, help reduce necessary saw maintenance, and improve your productivity. Thus, it is important to follow certain guidelines when selecting a saw blade.

Here are factors to consider during selection:

- Type of material you will be cutting.
- Thickness of workpiece.
- Features of workpiece, such as bends or curves with small radii.

These factors are important because they involve basic concepts of saw blade design. There are five (5) blade features that are normally changed to meet certain kinds of sawing requirements. They are:

- width
- pitch (number of teeth per inch)
- tooth form (or shape)
- "set" of the teeth
- the blade material itself

Width

Band saw blades come in different standard widths, measured from back edge of blade to tip of tooth. Generally, wider blades are used for ripping or making straight cuts, such as resawing. Narrower blades are often used when the part being cut has curves with small radii. When cutting straight lines with a narrow blade, the blade may have a tendency to drift.

Pitch

Pitch is measured in "teeth per inch" (TPI) and can be constant or variable. Figure 38 shows blades with different pitches.

A fine pitch (more teeth per inch) will cut slowly but more smoothly. A coarse pitch (fewer teeth per inch) will cut faster but more roughly.

As a rule of thumb, the thicker the workpiece, the coarser will be the blade pitch. If you have to cut a hard or very brittle material, you will probably want to use a blade with a finer pitch in order to get clean cuts.

Using a blade with too few teeth may cause vibration and a rough cut, while too many teeth may cause the gullets to fill with sawdust and overheat the blade.

As a general rule, use a blade that will have from 6 to 12 teeth in the workpiece at any given time.

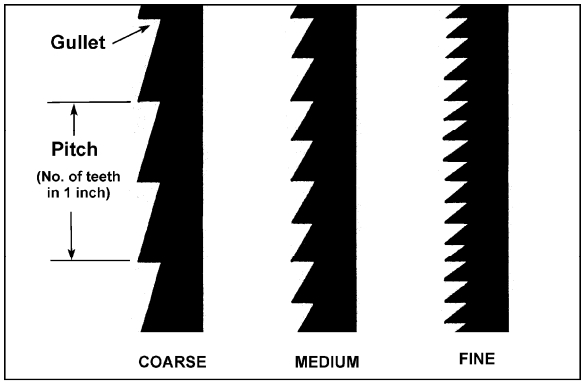


Figure 38 – Blade Pitch

Shape

Figure 39 shows common types of tooth shape, or form. Tooth shape has an effect on cutting rate.

The *Regular,* or standard blade, has evenly spaced teeth that are the same size as the gullets, and a zero-degree rake (i.e. cutting angle).

These offer precise, clean cuts at slower rates. It is usually a good choice for cutting curves and making crosscuts.

The *Skip* type has fewer teeth and larger gullets with a zero rake. It allows faster cutting rates than the Regular type, with a slightly coarser finish. It is useful for resawing and ripping thick stock, as well as cutting softwoods.

The *Hook* type blade has larger teeth and gullets and a positive rake angle for more aggressive, faster cutting when resawing or ripping thick stock, especially hardwoods.

Variable-tooth blades combine features of the other shapes, with tooth style and spacing varying on the same blade. This produces smooth cuts while dampening vibration.

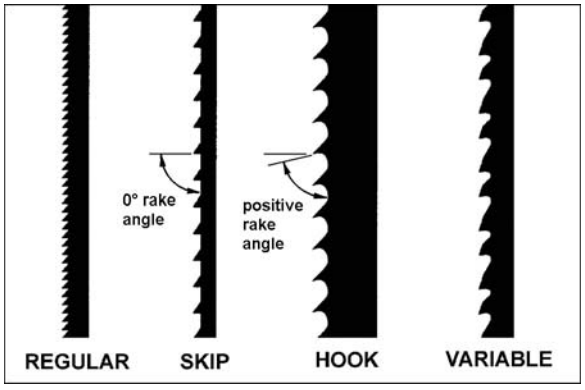


Figure 39 – Blade Tooth Shape

Set

The term “set” refers to the way in which the saw teeth are bent or positioned. Bending the teeth creates a kerf that is wider than the back of the blade. This helps the operator more easily pivot a workpiece through curve cuts, and decreases friction between blade and workpiece on straight cuts.

Set patterns are usually selected depending upon the type of material that needs to be cut. Three common set patterns are shown in Figure 40.

Generally, the *Raker* set is used for cutting metal workpieces; the *Wavy* set, when the thickness of the workpiece changes, such as cutting hollow tubing or structurals. The *Straight*, or *Alternate*, set is the one most used for woodworking blades, and is also used to cut plastics.

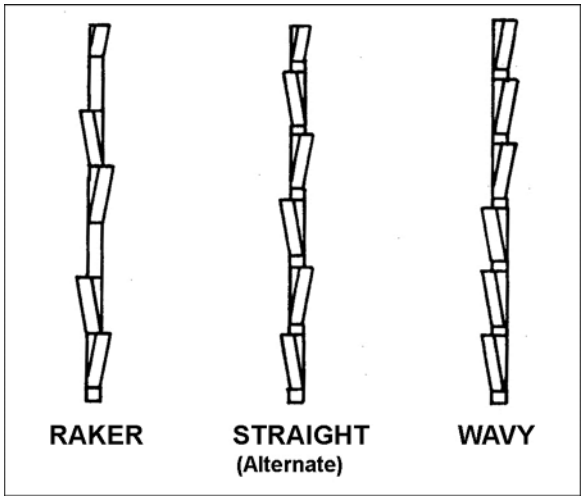


Figure 40 – Blade Set

Material

Band saw blades can be made from different types of metals. The most common include spring steel, carbon steel, bimetal (alloy steel equipped with a high speed cobalt steel edge welded to it), or carbide tips.

Because of the importance of blade selection, it is recommended that you use the blade selection guide (*section 13.0)*. Also, listening to experienced band saw users will produce valuable information as to blade types currently on the market along with their pros and cons.

Blade breakage

Band saw blades are subject to high stresses and breakage may sometimes be unavoidable. However, many factors can be controlled to help prevent most blade breakage. Here are some common causes for breakage:

1. Misalignment of blade guides.
1. Feeding workpiece too quickly.
2. Using a wide blade to cut a tight radius curve.
3. Excessive tension.
4. Teeth are dull or improperly set.
5. Upper guides set too high off workpiece.
6. Faulty weld on blade.

Although not essential, some users round or “stone” the back edge of their blade. This is done by placing a sharpening stone on the table and in light contact with the back corners of the blade as the blade is running. Rounding can help the back blade edge move more smoothly through the kerf, smooths the weld, and helps prevent cracks from starting at the back corners.

13.0 **Blade selection guide**

Identify the material and thickness of your workpiece. The chart will show recommended PITCH, blade TYPE, and FEED RATE.

Key: H – Hook L – Low
S – Skip M – Medium
R – Regular H – High

Example: 10/H/M means 10 teeth per inch / Hook Type Blade / Medium Feed

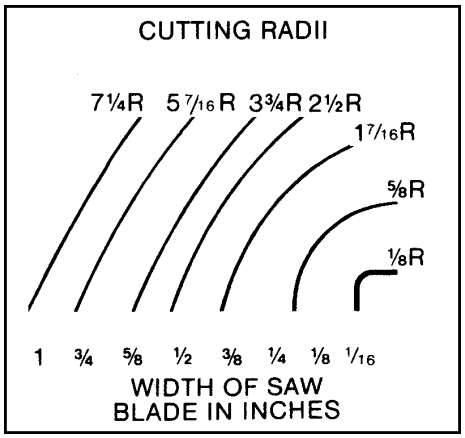
MATERIAL/S		WORKPIECE THICKNESS			
		½"	1"	3"	6+"
WOODS	HARDWOOD	10/R/L	8/R/L	3/H/M	3/H/M
	SOFTWOOD	10/R/L	8/R/L	3/H/M	3/H/M
NON-METALS	CARBON	10/R/L	6/R/L	3/S/M	3/S/M
	MICA	32/R/L	—	—	—
	ASBESTOS	8/R/L	6/R/L	3/S/M	3/S/M
	HARD RUBBER	10/R/L	8/R/L	6/R/M	2/S/H
PLASTICS	FORMICA	14/R/M	10/R/M	4/H/H	4/H/H
	MASONITE	10/R/L	4/S/L	3/S/M	3/H/M
	MICARTA	14/R/M	10/R/M	4/H/H	3/H/H
	PLEXIGLAS	10/R/L	6/R/L	3/S/M	3/S/M
	PAPER	14/R/L	10/R/L	4/S/L	3/S/M

Tables 2 and 3

For radius cutting

Study the part drawing or prototype, or actually measure the smallest cutting radius required, and locate this radius (in inches) on the chart at the right. Follow the curve to where the approximate blade width is specified. If a radius falls between two of the curves, select the widest blade that will saw this radius.

This procedure should be used for making initial blade selections. These recommendations can, of course, be adjusted to meet specific requirements of a cutting job. Compromises may be necessary if you cannot find all needed specifications in a single blade.



14.0 **Troubleshooting the JWBS-14SF Band Saw**

14.1 **Operational problems**

Table 4

Trouble	Probable Cause	Remedy
Table tilt does not hold position under load.	Lock handle not tight.	Tighten lock handle.
	Trunnion locking mechanism is broken or worn.	Replace trunnion locking mechanism.
Table will not tilt.	Trunnion not lubricated.	Lubricate trunnion.
	Trunnion jammed.	Disassemble and replace jammed parts.
Table vibration while sawing.	Drive belt too slack.	Increase tension on drive belt. Replace belt if worn.
	Incorrect choice of saw blade pitch.	Check blade selection chart and use correct blade.
	Saw dust or debris on band wheel. Or tire is worn/damaged.	Keep band wheels clean. Replace tires if necessary.
Surface finish on workpiece is rough.	Blade pitch too coarse.	Change to finer pitch blade.
	Workpiece being fed too strongly.	Reduce feed force.
Blade cutting inaccurately. Cuts not straight.	Gum or pitch on blade.	Clean blade.
	Worn blade teeth or damaged blade.	Replace blade.
	Fence not parallel to blade.	Align fence properly.
	Incorrect adjustment of blade guides.	Adjust blade guides properly *(sect. 8.13 thru 8.15).*
	Workpiece being fed too strongly.	Reduce feed force.
	Upper blade guides not located close enough to workpiece.	Position guides about 1/8" above workpiece.
	Incorrect choice of saw blade for that particular operation.	Install correct blade.
	Blade tension too light.	Increase tension *(sect. 8.10)*.
Blade cannot be tensioned properly.	Tension spring is fatigued.	Replace tension spring (contact Walter Meier service representative).
Blade binds in workpiece.	Incorrect blade tension or damaged blade.	Correct accordingly.
	Blade too wide for desired radius.	Select narrower blade *(sect. 13.0).*
Blade forms cracks at base of teeth.	Teeth not suitable for operation, or incorrectly set.	Replace with proper blade.
	Blade thickness not suitable for band wheel diameter.	Replace with proper thickness blade.
	Blade sharpened incorrectly, becomes overheated.	Sharpen blade properly or replace.
	Band wheels have become misaligned.	Contact service representative.
Cracks on back edge of blade.	Workpiece being fed too quickly.	Reduce feed speed to lessen strain on blade.
	Welding on blade not perfectly aligned.	Eliminate welded part, and re-weld properly; or acquire a new blade. Round the back edge of a new blade.
	Thrust bearing is worn; caused by constant contact with back of blade.	Replace thrust bearing. Adjust new bearing according to instructions.
Blade breaks prematurely.	Feed force too great.	Reduce feed force.
	Blade pitch too coarse.	Refer to blade selection chart; use finer pitch blade.

Trouble	Probable Cause	Remedy
Blade breaks prematurely (cont.)	Guide bearings not properly supporting blade.	Check guide bearings for correct position and signs of wear. Adjust or replace as needed.
	Blade tensioned too tightly.	Reduce tension.
Blade breaks close to weld.	Blade overheated during welding.	Have blade annealed, or eliminate brittle part and weld correctly.
	Blade cooled too rapidly after welding.	Have blade annealed, or eliminate brittle part and weld correctly.
Premature dulling of saw teeth.	Blade pitch too fine.	Refer to blade selection chart *(sect. 13.0).* Use blade with coarser pitch.
	Feed pressure too light.	Increase feed pressure.
	Cutting rate too low.	Increase feed pressure and cutting rate.
	Incorrect choice of blade.	Re-examine material. Select proper blade from chart *(sect. 13.0).*
	Chipped tooth or foreign object lodged in cut.	Stop saw and remove lodged particle. Replace blade if damaged.

14.2 **Mechanical and electrical problems**

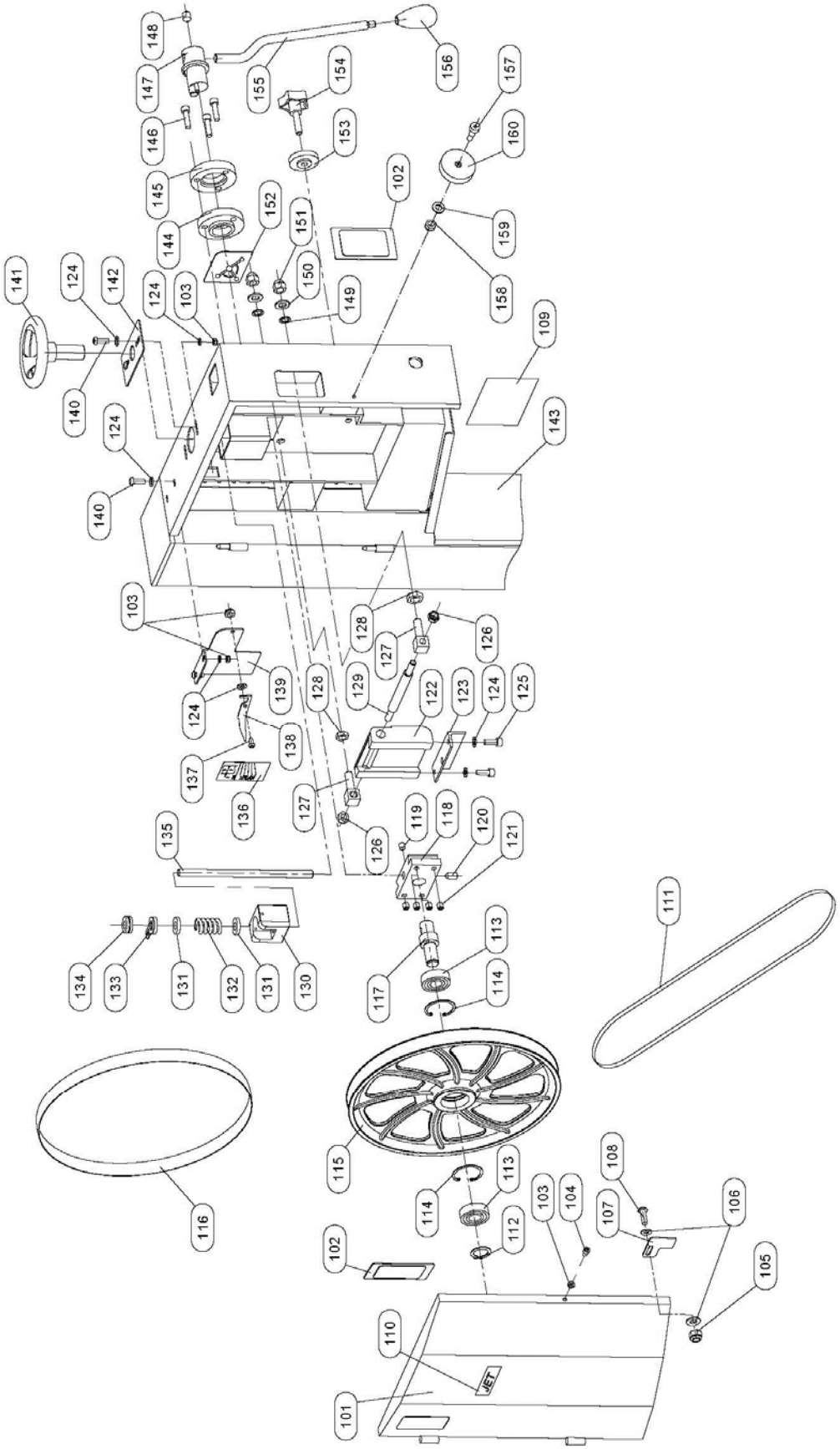
Table 5

Trouble	Probable Cause	Remedy
Machine will not start/restart or repeatedly trips circuit breaker or blows fuses.	No incoming power.	Verify machine connections.
	Cord damaged.	Replace cord.
	Band Saw frequently trips.	One cause of overloading trips which are not electrical in nature is too heavy a cut. The solution is to reduce feed pressure into the blade. If this does not resolve the issue, check for loose electrical lead.
	Building circuit breaker trips or fuse blows.	Verify that band saw is on a circuit of correct size. If circuit size is correct, there is probably a loose electrical lead. Check amp setting on motor starter.
	Switch or motor failure (how to distinguish).	If you have access to a voltmeter, you can separate a starter failure from a motor failure by first, verifying incoming voltage at 115 +/-10% (230+/-10%) and second, checking the voltage between starter and motor at 115 +/-10% (230+/-10%). If incoming voltage is incorrect, you have a power supply problem. If voltage between starter and motor is incorrect, you have a starter problem. If voltage between starter and motor is correct, you have a motor problem.
	Motor overheated.	Clean motor of dust or debris to allow proper air circulation. Allow motor to cool down before restarting.
	Motor failure.	If electric motor is suspect, you have two options: Have a qualified electrician test the motor for function or remove the motor and take it to a qualified electric motor repair shop for testing.
	Miswiring of unit.	Double check to confirm all electrical connections are correct. Refer to wiring diagram to make needed corrections.
	Switch failure.	If the start/stop switch is suspect, you have two options: Have a qualified electrician test the switch for function, or purchase a new start/stop switch and establish if that was the problem on change-out.
Band Saw does not attain full speed.	Extension cord too light or too long.	Replace with adequate size and length cord.
	Low current.	Contact a qualified electrician.

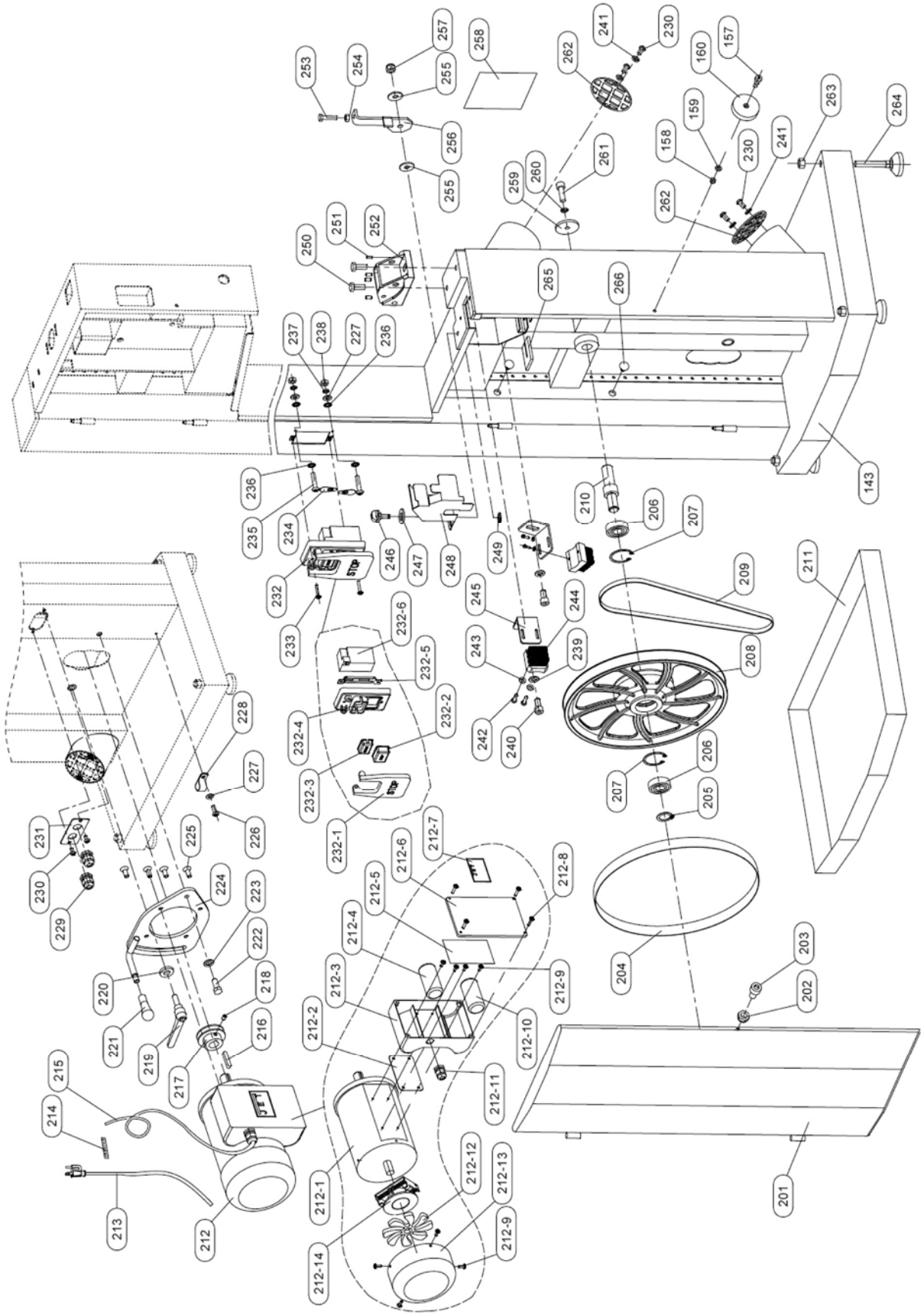
15.0 **Replacement parts**

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

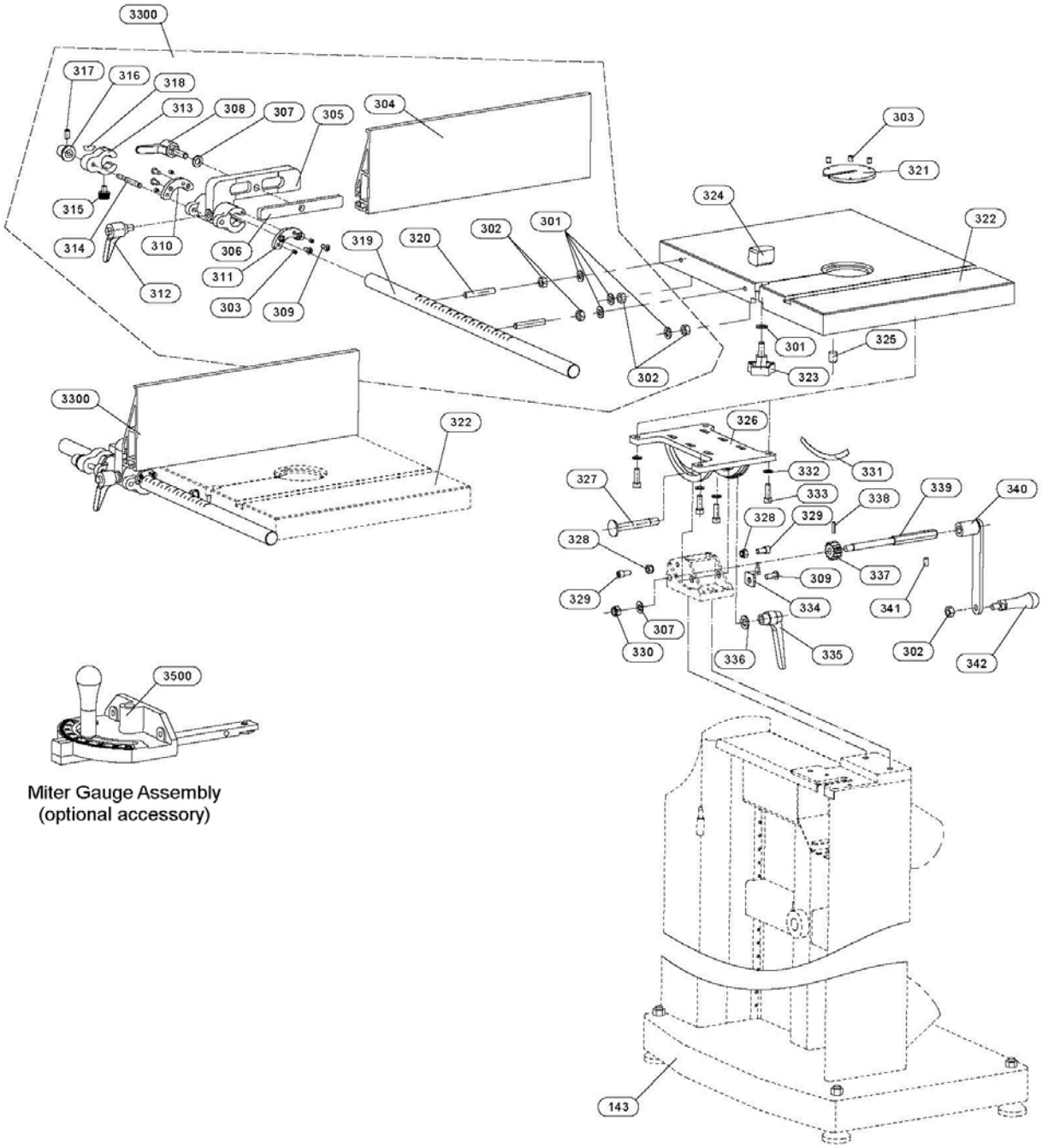
15.1.1 **JWBS-14SF – Upper Wheel Assembly – Exploded View**



15.1.2 **JWBS-14SF – Lower Wheel & Motor Assembly – Exploded View**

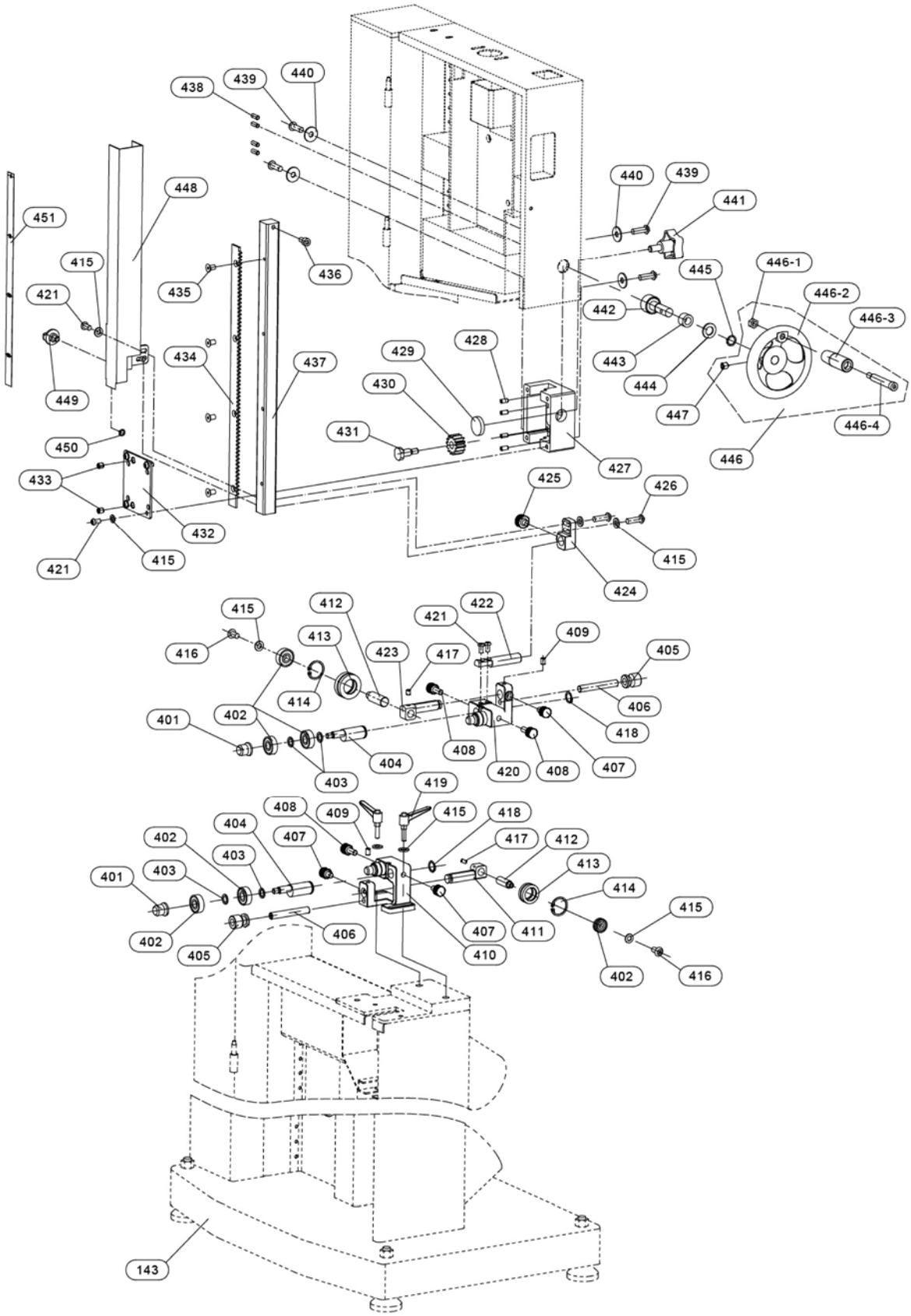


15.1.3 **JWBS-14SF – Table and Miter Gauge Assembly* – Exploded View**



* optional accessory – see your dealer to order.

15.1.4 **JWBS-14SF – Blade Guide Assembly – Exploded View**



15.1.5 **JWBS-14SF Band Saw Parts List**

Index No	Part No	Description	Size	Qty
101	JWBS14SF-101	Upper Front Door		1
102	JWBS14SF-102	Sight Glass		2
103	TS-1541021	Nylon Insert Lock Hex Nut	M6	6
104	TS-1503021	Socket Head Cap Screw	M6x10	1
105	TS-1541001	Nylon Insert Lock Hex Nut	M4	1
106	TS-1550021	Flat Washer	4 mm	2
107	JWBS14SF-107	Guide Pointer		1
108	TS-1501031	Socket Head Cap Screw	M4x10	1
109	JWBS14SF-109	I.D. Label		1
110	JET-138	Jet Logo	138 x 57mm	1
111	JWBS14SF-111	Blade	1/2" x 125"	1
112	JWBS14SF-112	Retaining Ring	R20	1
113	BB-6204ZZ	Bearing	6204/P6-2RZ	2
114	JWBS14SF-114	Retaining Ring	R47	2
115	JWBS14SF-115	Upper Wheel		1
116	JWBS14SF-116	Tire		1
117	JWBS14SF-117	Upper Wheel Shaft		1
118	JWBS14SF-118	Slide Pad		1
119	TS-1523021	Socket Set Screw	M6x8	1
120	TS-1524041	Socket Set Screw	M8x16	1
121	JWBS14SF-121	Fixed Screw	M8x10	4
122	JWBS14SF-122	Dovetail Base		1
123	JWBS14SF-123	Bracket		1
124	TS-1550041	Flat Washer	6 mm	11
125	TS-1503041	Socket Head Cap Screw	M6x16	2
126	TS-1541041	Nylon Insert Lock Hex Nut	M10	2
127	JWBS14SF-127	Square Head Screw		2
128	TS-2311121	Hex Nut	M12	2
129	JWBS14SF-129	Rotating Shaft		1
130	JWBS14SF-130	Block		1
131	JWBS14SF-131	Washer		2
132	JWBS14SF-132	Spring		1
133	JWBS14SF-133	Tensioning Washer		1
134	JWBS14SF-134	Bearing	51201 (ø12-ø28-h11)	1
135	JWBS14SF-135	Blade Adjusting Screw		1
136	JWBS14SF-136	Blade Tension Indicator Label		1
137	TS-1503031	Socket Head Cap Screw	M6x12	1
138	JWBS14SF-138	Tension Pointer		1
139	JWBS14SF-139	Tension Indicator Plate		1
140	TS-1503041	Socket Head Cap Screw	M6x16	4
141	JWBS14SF-141	Handwheel		1
142	JWBS14SF-142	Limit Plate		1
143	JWBS14SF-143	Saw Body		1
144	JWBS14SF-144	Collar		1
145	JWBS14SF-145	Support Collar		1
146	TS-1504061	Socket Head Cap Screw	M8x30	3
147	JWBS14SF-147	Cam Shaft		1
148	TS-1524021	Socket Set Screw	M8x10	1
149	TS-2361121	Lock Washer	12 mm	2
150	TS-2360121	Flat Washer	12 mm	2
151	TS-2331121	Cap Nut	M12	2
152	JWBS14SF-152	Blade Quick Release Label		1
153	JWBS14SF-153	Adjusting Nut		1
154	JWBS14SF-154	Handle	M10X45	1
155	JWBS14SF-155	Tension Handle		1
156	JWBS14SF-156	Tension Handle Knob		1
157	JWBS14SF-157	Hex Head Shoulder Screw	M6x10	2

Index No	Part No	Description	Size	Qty
158	TS-1541011	Nylon Insert Lock Hex Nut	M5	2
159	TS-1550031	Flat Washer	5 mm	2
160	JWBS14SF-160	Door Lock Knob		2
201	JWBS14SF-201	Lower Front Door		1
202	TS-1541021	Nylon Insert Lock Hex Nut	M6	6
203	TS-1503021	Socket Head Cap Screw	M6x10	1
204	JWBS14SF-116	Tire		1
205	JWBS14SF-112	Retaining Ring	R20	1
206	BB-6204ZZ	Bearing	6204/P6-2RZ	2
207	JWBS14SF-114	Retaining Ring	R47	2
208	JWBS14SF-208	Lower Wheel		1
209	JWBS14SF-209	V-Belt	HM38–9.5×965La	1
210	JWBS14SF-210	Lower Wheel Shaft		1
211	STRIPE-1-3/4	Jet Stripe	1-3/4" W	sold per ft.
212	JWBS14SF-212	Motor Assembly (#212-1 thru 212-14)	1.75HP, 115V/230V	1
212-1	JWBS14SF-212-1	Motor Body		1
212-2	JWBS14SF-212-2	Soft Mat		1
212-3	JWBS14SF-212-3	Capacitor Box		1
212-4	JWBS14SF-212-4	Running Capacitor	80μF,450V	1
212-5	JWBS14SF-212-5	Wiring Diagram		1
212-6	JWBS14SF-212-6	Capacitor Box Cover		1
212-7	JWBS14SF-212-7	Motor Label		1
212-8	TS-2284202	Pan Head Machine Screw	M4x20	4
212-9	TS-2284082	Pan Head Machine Screw	M4x8	8
212-10	JWBS14SF-212-10	Starting Capacitor	400~480MFD/250VAC	1
212-11	JWBS14SF-212-11	Strain Relief Bushing		1
212-12	JWBS14SF-212-12	Motor Fan		1
212-13	JWBS14SF-212-13	Motor Fan Cover		1
212-14	JWBS14SF-212-14	Centrifugal switch		1
213	JWBS14SF-213	Power Cord		1
214	JWBS14SF-214	Plug Warning Label		1
215	JWBS14SF-215	Motor Cord		1
216	JWBS14SF-216	Key	6x35 mm	1
217	JWBS14SF-217	Motor Pulley		1
218	TS-1523021	Socket Set Screw	M6x8	1
219	JWBS14SF-219	Adjustable Handle		1
220	JWBS14SF-220	Washer		1
221	JWBS14SF-221	Handle		1
222	TS-1492021	Hex Cap Screw	M12x30	1
223	JWBS14SF-223	Nylon Washer		1
224	JWBS14SF-224	Motor Bracket		1
225	TS-2248202	Socket Head Button Screw	M8x20	4
226	TS-1532032	Pan Head Machine Screw	M4x10	1
227	TS-1550021	Flat Washer	4 mm	3
228	JWBS14SF-228	R-Type Cable Clamp		1
229	JWBS14SF-212-11	Strain Relief Bushing		2
230	TS-1534042	Pan Head Machine Screw	M6x12	6
231	JWBS14SF-231	Plate		1
232	JWBS14SF-232	Switch Assembly (#232-1 thru 232-6)		1
232-1	JWBS14SF-232-1	Paddle Button		1
232-2	JWBS14SF-232-2	STOP Button		1
232-3	JWBS14SF-232-3	START Button		1
232-4	JWBS14SF-232-4	Support		1
232-5	JWBS14SF-232-5	Panel		1
232-6	JWBS14SF-232-6	Push Button Switch		1
233	TS-2284302	Pan Head Machine Screw	M4x25	2
234	JWBS14SF-234	Grounding Symbol		2
235	TS-2284302	Pan Head Machine Screw	M4x25	2
236	JPS10TS-345	External Tooth Lock Washer	4 mm	4
237	TS-2361041	Lock Washer	4 mm	2

Index No	Part No	Description	Size	Qty
238	TS-1540021	Hex Nut	M4	2
239	TS-1550061	Flat Washer	8 mm	2
240	TS-1504031	Socket Head Cap Screw	M8x16	2
241	TS-1550041	Flat Washer	6 mm	4
242	JWBS14SF-242	Pan Head Tapping Screw	ST3×13	4
243	TS-1550011	Flat Washer	3 mm	4
244	JWBS14SF-244	Brush		2
245	JWBS14SF-245	Brush Plate		2
246	JWBS14SF-246	Kneading Screw	M8×20	1
247	TS-1550061	Flat Washer	8 mm	1
248	JWBS14SF-248	Lower Blade Guard		1
249	JWBS14SF-249	Retaining Ring	R6	1
250	TS-149105	Hex Cap Screw	M10x35	2
251	TS-1523041	Socket Set Screw	M6x12	4
252	JWBS14SF-252	Trunnion Support Bracket		1
253	TS-1482051	Hex Cap Screw	M6x25	1
254	TS-2311061	Hex Nut	M6	1
255	TS-1550061	Flat Washer	8 mm	2
256	JWBS14SF-256	Support Plate		1
257	TS-1541031	Nylon Insert Lock Hex Nut	M8	1
258	JWBS18-141	Warning Label		1
259	JWBS14SF-259	Washer		1
260	TS-2361081	Lock Washer	8 mm	1
261	TS-1504051	Socket Head Cap Screw	M8x25	1
262	JWBS14SF-262	Dust Guard		2
263	TS-2342121	Hex Nut	M12	4
264	JWBS14SF-264	Bolt With Leveling Pad	M12x70	4
265	JWBS14SF-265	Wood Insert	59x75x13 mm	1
266	JWBS14SF-266	Plug		2
3300	JWBS14SF-3300	Fence Assembly (#301 thru 320)		1
301	TS-1550071	Flat Washer	10 mm	4
302	TS-1540071	Hex Nut	M10	5
303	TS-1521011	Socket Set Screw	M4x5	7
304	JWBS14SF-304	Fence		1
305	JWBS14SF-305	Fence Body		1
306	JWBS14SF-306	Lock Bar		1
307	TS-1550071	Flat Washer	10 mm	3
308	JWBS14SF-308	Adjustable Handle	M10x40	1
309	TS-1532032	Pan Head Machine Screw	M4x10	5
310	JWBS14SF-310	Fence Collar LH		1
311	JWBS14SF-311	Fence Collar RH		1
312	JWBS14SF-312	Adjustable Handle	M10x15	1
313	JWBS14SF-313	Fine Adjust Collar		1
314	JWBS14SF-314	Fine Adjust Rod		1
315	JWBS14SF-315	Knurled Locking Knob		1
316	JWBS14SF-316	Fine Adjust Knob		1
317	TS-1521031	Socket Set Screw	M4x8	1
318	JWBS14SF-318	Fine Adjust Label		1
319	JWBS14SF-319	Guide Bar		1
320	JWBS14SF-320	Fence Bolt		2
321	JWBS14SF-321	Table Insert		1
322	JWBS14SF-322	Table		1
323	JWBS14SF-323	Handle	M10x25	1
324	JWBS14SF-324	Table Locking Block		1
325	JWBS14SF-325	Roll Pin		1
326	JWBS14SF-326	Trunnion		1
327	JWBS14SF-327	Locking Shaft		1
328	TS-1541031	Nylon Insert Lock Hex Nut	M8	2
329	JWBS14SF-329	Locating Shaft		2
330	TS-2342101	Nylon Insert Lock Hex Nut	M10	1

Index No	Part No	Description	Size	Qty
331	JWBS14SF-331	Tilt Degree Scale		1
332	TS-1550061	Flat Washer	8 mm	4
333	TS-1504051	Socket Head Cap Screw	M8x25	4
334	JWBS14SF-334	Pointer		1
335	JWBS14SF-335	Adjustable Handle	M12x20……	1
336	TS-2360121	Flat Washer	12 mm	1
337	JWBS14SF-337	Gear		1
338	JWBS14SF-338	Spring Pin	4x22 mm	1
339	JWBS14SF-339	Table Shaft		1
340	JWBS14SF-340	Table Tilt Handle		1
341	JWBS14SF-341	Screw	M8x16	1
342	JWBS14SF-342	Handle		1
401	JWBS14SF-401	Front Bearing Fixed Knob		4
402	BB-608ZZ	Bearing	608	10
403	JWBS14SF-403	Bushing Washer		8
404	JWBS14SF-404	Eccentric Shaft		4
405	JWBS14SF-405	Upper Knob		2
406	JWBS14SF-406	Set Screw	M8x55	2
407	JWBS14SF-407	Knurled Locking Knob, Short		3
408	JWBS14SF-408	Knurled Locking Knob, Long		3
409	JWBS14SF-409	Screw	5x12	2
410	JWBS14SF-410	Lower Guide Bracket		1
411	JWBS14SF-411	Lower Guide Shaft		1
412	JWBS14SF-412	Rear Bearing Guide Shaft		2
413	JWBS14SF-413	Bearing bracket		2
414	JWBS14SF-414	Retaining Ring	22 mm	2
415	TS-1550041	Flat Washer	6 mm	12
416	JWBS14DP-134	Pan Head Machine Screw	M6x8	2
417	TS-1523011	Socket Set Screw	M6x6	2
418	JWBS14SF-418	Retaining Ring	15 mm	4
419	JWBS14SF-419	Adjustable Handle	M6x20	2
420	JWBS14SF-420	Upper Guide Bracket		1
421	TS-1534042	Pan Head Machine Screw	M6x12	8
422	JWBS14SF-422	Locking Shaft		1
423	JWBS14SF-423	Upper Guide Shaft		1
424	JWBS14SF-424	Guide Bracket		1
425	JWBS14SF-425	Knurled Locking Knob		1
426	TS-2286202	Pan Head Machine Screw	M6x20	2
427	JWBS14SF-427	Guide Bar Bracket		1
428	TS-1523041	Socket Set Screw	M6x12	4
429	JWBS14SF-429	Rack Lock Block		1
430	JWBS14SF-430	Gear		1
431	JWBS14SF-431	Shaft		1
432	JWBS14SF-432	Plate		1
433	JWBS14SF-121	Set Screw	M8x10	2
434	JWBS14SF-434	Rack		1
435	TS-1534041	Flat Head Machine Screw	M5x10	4
436	TS-1503031	Socket Head Cap Screw	M6x12	1
437	JWBS14SF-437	Guide Post		1
438	TS-1523051	Socket Set Screw	M6x16	4
439	JWBS14SF-439	Flat Head Machine Screw	M8x25	4
440	TS-1550061	Flat Washer	8 mm	4
441	JWBS14SF-441	Lock Knob		1
442	JWBS14SF-442	Worm		1
443	JWBS14SF-443	Sleeve		1
444	JWBS14SF-444	Washer		1
445	JWBS14SF-445	Retaining Ring	14 mm	1
446	JWBS14SF-446	Handwheel Assembly (#446-1 thru 446-4)	14x125 mm	1
446-1	TS-1541031	Hex Nut	M8	1
446-2	JWBS14SF-446-2	Handwheel		1

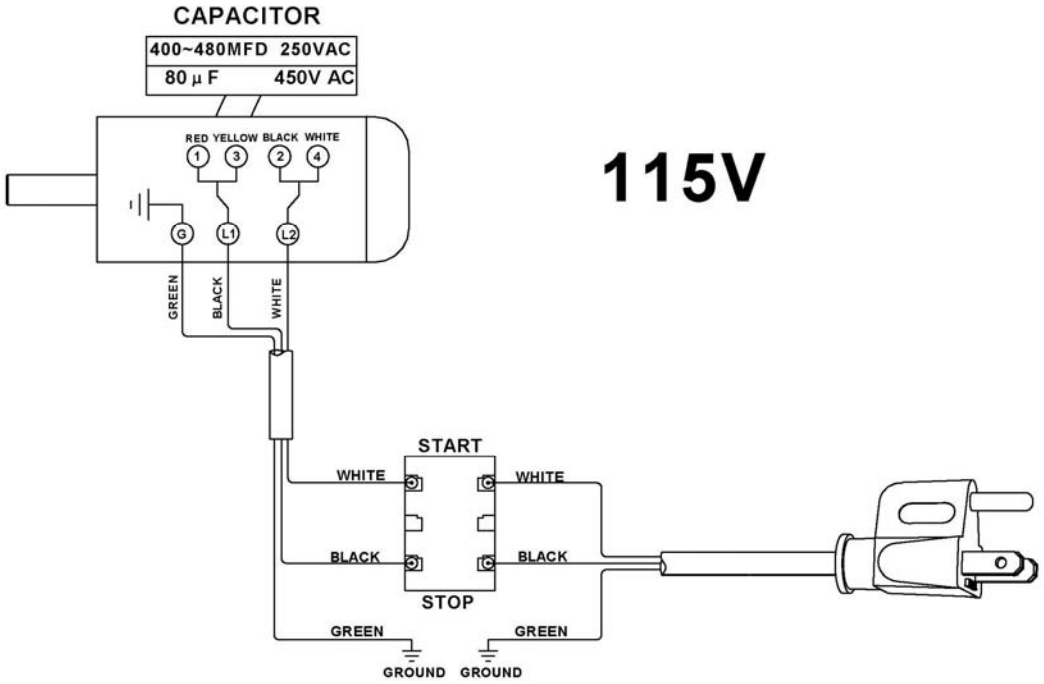
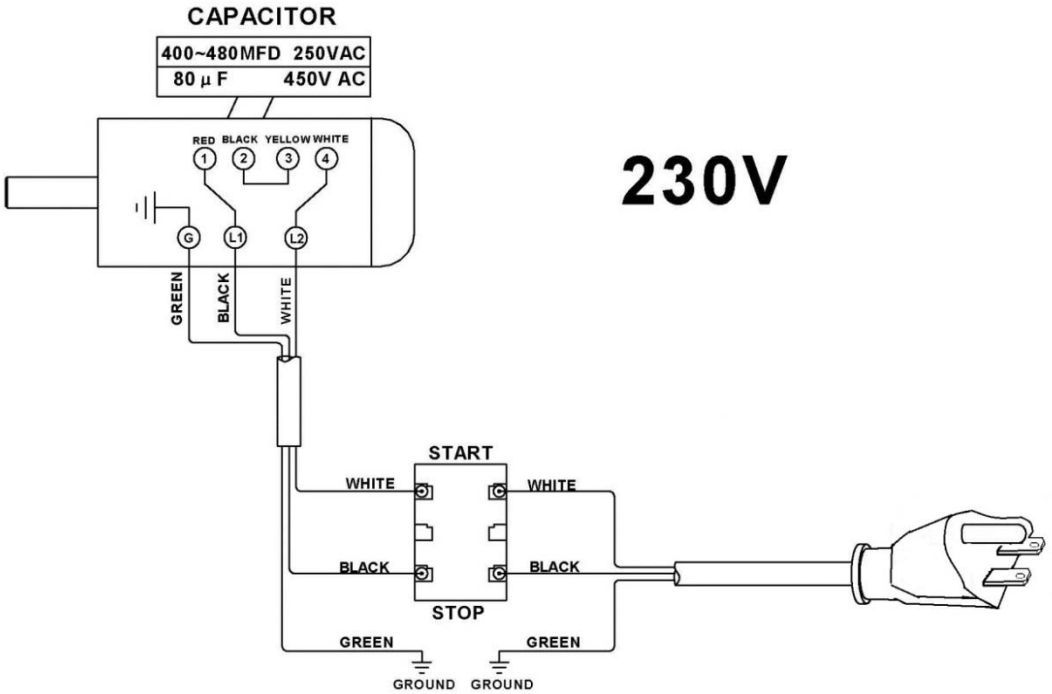
Index No	Part No	Description	Size	Qty
446-3	JWBS14SF-446-3	Handle Body		1
446-4	JWBS14SF-446-4	Handle		1
447	TS-1524021	Socket Set Screw	M8x10	1
448	JWBS14SF-448	Blade Guard		1
449	JWBS14SF-449	Kneading Screw	M8x10	1
450	JWBS14SF-236	Retaining Ring	R6	1
451	JWBS14SF-451	Cutting Height Scale		1

Optional accessory:

3500	708748	Miter Gauge Assembly		1

16.0 **Electrical Connections – JWBS-14SF Band Saw**

1.75HP, 1PH, 115V only



1.75HP, 1PH, 230V only